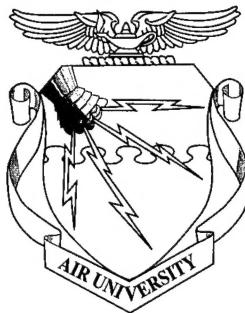# United States Air Force Lessons in Counterinsurgency
Exposing Voids in Doctrinal Guidance

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AIR UNIVERSITY

United States Air Force
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Contents

Abstract

As it has so often in the past, the United States (US) military and the US Air Force (USAF) will undoubtedly provide support across the globe to countries combating insurgents in the future. The host-nation political and military organization and command and control structure governing the deployment and employment of air forces in these wars will have a large impact on the success or failure of air operations and perhaps the national counterinsurgency (COIN) effort overall. Because of the delicate political nature of wars of insurgency, US involvement in these COIN operations may be indirect or direct and may include actual combat operations. Whichever the case, US airmen may be asked to step into either an existing structure or help develop a COIN air operations architecture and strategy to direct the actions of host nation and/or US air assets. To help educate airmen about the realities of COIN, this study addresses how insurgent warfare is fundamentally different from conventional wars, develops lessons from two case studies, highlights the challenges that US airmen face, and examines the adequacy of USAF and joint doctrine for COIN operations.

About the Author

Maj John W. Doucette is a senior pilot with more than 2,000 hours in the T-37, T-38, AT-38, and F-15C. He flew as a mission commander in Operations Desert Shield, Desert Storm, Provide Comfort, and Northern Watch. He is also a distinguished graduate of Officer Training School, Squadron Officer School, and Air Command and Staff College. Major Doucette is a 1999 graduate of the School of Advanced Airpower Studies at Maxwell Air Force Base, Alabama.

Acknowledgments

Chapter 1

Introduction

I would say the Air Force has the hardest problem in deciding on a doctrine for this kind of thing because of the nature of the Air Force. . . . It is hard to know just how you can define the Air Force role, in unconventional warfare, particularly since every place is going to be different.

—Gen Maxwell D. Taylor

Gen Maxwell D. Taylor aptly described one of the greatest challenges of unconventional warfare when he said, "every place is going to be different."[1] He was commenting in reference to the United States's (US) involvement in the counterinsurgency (COIN) war in South Vietnam (SVN), one of the many wars in which US forces supported COIN operations or actually fought against insurgents. This study addresses how insurgent warfare is fundamentally different from conventional wars, develops lessons learned from two case studies, and highlights the challenges that US airmen face; and it examines the adequacy of doctrine for COIN operations.

Insurgencies: Not Uncommon

American military forces are no strangers to COIN operations. In the twentieth century alone, the United States supplied aid or forces in more than 60 different conflicts, many of which were counterinsurgencies. Among others these conflicts included the Philippines at the turn of the century, Nicaragua in the early 1930s, Greece in the late 1940s, the Philippines again in the 1950s, Vietnam in the 1960s, and El Salvador in the 1980s.[2]

In the early sixties, President John F. Kennedy recognized the threat of insurgent warfare in the world of superpower standoffs. He described his perception of insurgencies to the West Point graduating class of 1962: "This is another type of war, new in its intensity, ancient in its origins—war by guerrillas, subversives, insurgents, and assassins. War by ambush instead of combat; by infiltration instead of aggression; seeking victory by eroding and exhausting the enemy instead of engaging him. . . . It requires . . . a wholly new kind of strategy; a wholly new kind of force and therefore a new and different kind of military training."[3] Because President Kennedy realized that insurgent warfare was not uncommon and that it posed a real and complex threat to US interests, in 1961 he requested the Department of Defense (DOD) to assess the threat and reorient doctrine and training to include COIN.[4]

Even today we see insurgencies in Central America, splinter groups struggling to assert independence in the Balkans, and nations such as Great Britain and Israel continuing to wrestle with conflicts in Northern Ireland and southern Lebanon, respectively. In the foreseeable future, it

is unlikely that the threat posed by insurgent groups will fade away. Guided by US national security strategy to protect and promote democratic societies, America's interests will likely continue to be linked in some form or fashion to help allied nations deal with internal struggles.

Insurgencies in the Abstract

Arguably, President Kennedy ushered in a resurgence of American military thought for meeting the threat of insurgencies; but the concept of insurgent warfare, and its guerrilla-style tactics, has a long tradition. As early as 350 B.C., the Chinese general Sun Tzu—in his work *The Art of War*—advocated integrating political theory into military strategy.[5] Sun Tzu's advice was to use time rather than force to subdue an enemy; and many of his teachings developed the thought that the greatest military skill was to avoid the battle and to subdue opponents through psychological warfare.

Mao Tse-tung, a modern student of Sun Tzu, was arguably the father of protracted revolutionary warfare. In his works, Mao constantly preached that revolutions must galvanize the support of the people and the revolutionary movement must survive until its forces are strong enough to fight on conventional terms.[6] Mao believed that insurgent forces should be on the strategic defensive until enough support and military strength exist to go on the offensive. Mao termed the transition period from strategic defensive to counteroffensive as the strategic stalemate stage. Many modern scholars argue that most successful insurgencies follow Mao's model of a three-phase war.[7]

Mao's first phase—strategic defensive—involves developing the infrastructure of the insurgent movement: recruiting, organizing, and equipping combat elements. Building secure bases of operations and indoctrinating civilians into the cause and beliefs of the insurgent organization also occur in the first phase. In the second or stalemate phase, irregular forces harass the government security forces with guerrilla tactics, expand insurgent bases for support, and sabotage important government facilities. The key to successful operations for the insurgents is to avoid the costly big battles and engage in operations that legitimize their existence in the eyes of the civilian population. The third phase, counteroffensive, transitions from guerrilla operations to more conventional military operations. In this phase, the insurgency has gained political momentum and developed a military infrastructure capable of engaging and surviving direct military contact with regular security forces. John S. Pustay describes these three phases as moving from the initial stages of subversion and infiltration to the final outcome of civil war.[8]

Insurgencies: Fundamentally Different

An insurgency in its purest sense is nothing more than armed revolution against the established political order. However, insurgencies rarely exist in a vacuum and are often influenced by external aid to the insurgents, the established government, or both. Professor Dennis M. Drew describes five characteristics of insurgent warfare that make it fundamentally different from conventional war.[9]

Protractedness. Insurgents use time as a weapon to weaken the government. They need time to build their infrastructure, as in phase one, and to prove legitimacy. As long as the insurgency can remain viable, it demonstrates to the people that the government does not control its own destiny and that the insurgent's cause is legitimate.

Civilian-Military "Duality" of Insurgent Strategy. Drew makes the point that the government must win both the political and military sides of the struggle. However, the insurgents only have to win one struggle or the other.

Guerrilla Tactics. Insurgents weave in and out of the shadows of the civilian population. They choose the time and place of the encounter and "melt away" to minimize their military cross section for targeting by the government. In doing so they offer few, if any, opportunities for the government to strike and reduce their numbers.

Logistics. As opposed to conventional armies with their support lines stretched out behind the battlefield, insurgents draw their sustenance from the very population they seek to recruit. In this regard insurgents offer no lucrative "supply depot" or "power stations," but rather they share the same fields and footpaths used by the civilians.

Centers of Gravity. Most importantly, both the government and insurgents have the same center of gravity—the people. To be successful the political infrastructure of the insurgency *necessarily* relies on the population for the above-mentioned needs. The government likewise necessarily requires the loyalty of the general population.[10]

The key is that insurgent wars, though they may involve limited combat operations, are a struggle for the hearts and minds of the people. In the middle of the struggle—as participant, bystander, and victim—is the civilian population.

Counterinsurgency: The US Airman's Challenge

From a US airman's perspective, Drew's five characteristics of insurgency warfare offer unique challenges. First, the protractedness of insurgency warfare requires long-term commitment by the United States and requires airmen to take the long view of the conflict. America's penchant for quick, decisive victories may pressure US military advisors to provide aid that the host nation is unable to use effectively. US funding may ebb and flow depending on the whim of the Congress. In the middle of temporal quandary, US Air Force (USAF) advisors must provide credible recommendations that are consistent with host-nation objectives and that account for expected US support.

Second, the duality of the conflict often places the advisor in a position of advocating not only military options but economic, social, and political alternatives as well. Because the legitimate government must win both the military and political struggles, USAF advisors must be cognizant of the causes of the country's internal conflict. Airpower's successful contribution to the struggle is likely to hinge more on psychological operations and social reform programs than physically destroying the insurgents.

Third, guerrilla tactics make it difficult to target the insurgents. The insurgents, members of the population in rebellion, can blend in with the

local civilians. This ability makes it difficult for military forces, especially airborne firepower, to discriminate between friend and foe. With friend and foe intermingled, air attacks on ground formations commonly lead to injury or death of civilians. Civilian casualties tend to place the government in an unfavorable light, both internally and internationally, and weaken its claims to legitimacy.

Fourth, insurgents provide few lucrative logistics targets. They exist in the same villages, towns, and countryside as the civilian populations; and most resources they require for sustenance come from the local populace. Insurgents may receive aid and supplies, especially weapons and ammunition, from a third-party country; and these may produce some interdiction targets. However, efforts to interdict externally supplied aid may not be politically feasible.

Fifth, winning the hearts and minds of the people may offer the greatest challenge. Insurgents and governments alike succeed by gaining and holding political legitimacy, which is grounded in the support of the people. This challenge compels the government to address the social issues that caused the insurgency. In this regard the military may actually become a hindrance, painted as a symbol of oppression by the insurgents. Securing this center of gravity, the people's support often has little to do with applying firepower.

Methodology of This Study

I examine the experiences of US airmen in combating insurgencies and contrast current COIN doctrine with reality. Chapters 2 and 3 look at the reality of airpower in COIN of two case studies. Chapter 2 also focuses on Operation Farmgate—a four-year operation initiated in late 1961—which involved upgrading South Vietnamese air combat capability, training their personnel, and flying with South Vietnamese forces during combat operations. The lessons from this era are recounted in the volumes of information collected from Project Contemporary Historical Evaluation of Combat Operations (CHECO) reports and the Corona Harvest program.[11] Chapter 3 provides a similar look at the war in El Salvador from 1981 through 1992. Whereas US operations eventually dominated the war in SVN, the conflict in El Salvador offers a study of limited US involvement over an extended period of time.

Chapter 4 examines current USAF and joint COIN doctrine for its perspective on COIN wars and how US armed forces should respond. This chapter also provides a cursory review of Army and Marine Corps COIN doctrine. The last chapter measures doctrine against reality and includes the conclusions and recommendations for changes to current doctrine based on the comparisons of actual events and guidance available today.

Limitations of This Study

This study primarily explores the airman's role in counterinsurgencies and the issues that affect integration and performance of air forces. Research for both case studies was limited to unclassified, English-based

sources. For the case of Operation Farmgate, the USAF Historical Research Agency proved invaluable with its seemingly limitless supply of archived records from the Vietnam era. Projects CHECO and Corona Harvest include recorded interviews, end-of-tour reports, and unit histories. Unfortunately, the air war in El Salvador did not generate such a plethora of written sources. However, much information on the air war in El Salvador can be gathered from open sources such as journals, articles, books, and reports. In addition, the author interviewed various personnel involved with the El Salvadoran conflict.

Notes

1. Maxwell D. Taylor, transcript of oral history interview by Richard B. Clement and Jacob Van Staaveren, 11 January 1972, 19, USAF Historical Research Agency, Maxwell Air Force Base (AFB), Ala.

2. John M. Collins, *America's Small Wars: Lessons for the Future* (Washington, D.C.: Brassey's, 1991), 20–21. Collins offers an excellent review of US involvement in low intensity conflicts.

3. William P. Yarborough, "Counterinsurgency: The U.S. Role—Past, Present, and Future," in *Guerrilla Warfare and Counterinsurgency,* ed. Richard H. Shultz Jr., et al. (Lexington, Mass.: Lexington Books, 1989), 103–4.

4. "Urgent National Needs: Special Message of the President to the Congress," *Department of State Bulletin* 44 (12 June 1961): 906.

5. Sun Tzu, *The Art of War,* trans. Ralph D. Sawyer (Boulder, Colo.: Westview Press, 1994).

6. Mao Tse-tung, *Six Essays on Military Affairs* (Peking: Foreign Languages Press, 1972), 21; and Samuel B. Griffith II, Brig Gen, USMC, *Mao Tse-tung on Guerrilla Warfare* (Baltimore, Md.: Nautical and Aviation Publishing Company of America, 1992), 71.

7. John S. Pustay, *Counterinsurgency Warfare* (New York: Free Press, 1965); Andrew R. Molnar et al., *Underground in Insurgent, Revolutionary, and Resistance Warfare* (Washington, D.C.: Special Operations Research Office, 1963); Vo Nguyen Giap, *People's War, People's Army* (New York: Praeger, 1962); and Peter Paret and John W. Shy, *Guerrillas in the 1960's* (New York: Praeger, 1962).

8. Pustay, 5. Pustay retired as a lieutenant general.

9. Dennis M. Drew, "U.S. Airpower Theory and the Insurgent Challenge: A Short Journey to Confusion," *Journal of Military History* 62 (October 1998): 810–11; and idem, *Insurgency and Counterinsurgency—American Military Dilemmas and Doctrinal Proposals,"* CADRE Paper No. 88-1 (Maxwell AFB, Ala.: Air University Press, March 1988). Professor Drew, a retired Air Force colonel and past director of the Airpower Research Institute, is associate dean for the School of Advanced Airpower Studies.

10. Roger Trinquier, *Modern Warfare: A French View of Counterinsurgency* (New York: Praeger, 1961); David Galula, *Counterinsurgency Warfare: Theory and Practice* (New York: Praeger, 1964); Julian Paget, *Counter-Insurgency Campaigning* (London: Faber and Faber, 1967); and Robert Thompson, *Defeating Communist Insurgency* (London: Chatto & Windus, 1966).

11. Project CHECO (Contemporary Historical Evaluation of Combat Operations) and Corona Harvest were programs initiated by the US Air Force to collect and preserve information related to operations in Southeast Asia. Project CHECO studies focused specifically on lessons learned for combat while Corona Harvest earmarked unit histories, end-of-tour reports, lessons learned, significant administrative orders, and any written record deemed to be of possible benefit for future analysis.

Chapter 2

South Vietnamese Counterinsurgency Campaign and Operation Farmgate, 1961–64

If you can visualize the Air Force building a cotton picker and then sending it out to Vietnam to pick apples, and then . . . they changed the mission and this cotton picker they have picking apples is now supposed to pick oranges. This is somewhat the situation we are in.

—Lt Col M. M. Doyle, commander
Detachment 2 (Farmgate)
1st Air Commando Group

Origins of Conflict

The French colonial involvement in Indochina began in the nineteenth century; but for practical purposes, the struggle of the Vietnamese against the French began in earnest at the end of World War II. Led by Ho Chi Minh, the communist Viet Minh directed guerrilla activities against the French in efforts to gain independence from France. For most of the next decade, France fought the Viet Minh, lost support from home, and eventually lost the national will to continue the struggle. To oversee the provision of emergency assistance and military upgrades to the French, the United States stood up the Military Assistance Advisory Group (MAAG) in Saigon in 1950.[1] President Dwight D. Eisenhower—unsure of Britain's support for US intervention and also unsure of the extent of China's involvement in the crisis—balked at supporting France with combat action.[2] After a crushing French defeat at Dien Bien Phu in 1954, the Viet Minh, the French, and other interested parties signed the Geneva Accords. The accords divided Vietnam at the 17th parallel, left the Viet Minh in control of the northern portion, required the withdrawal of adversary troops from either side of the demarcation line, and called for national elections in 1956 to unify the country (the elections were never held).

During this same decade, the world also saw many other communist-backed insurgencies and aggressions throughout the world: the Greek civil war, the Berlin blockade, the Hukbong insurgency in the Philippines, the coup in Czechoslovakia, and the war in Korea. Eisenhower assumed the Viet Minh would not rest until all of Vietnam was under communist control; therefore by 1956 the United States had replaced the French as the benefactor, supplier, and trainer of the newly created Republic of Vietnam (RVN) south of the 17th parallel. Eisenhower approved the gradual buildup of US advisors and supplies to the RVN to increase its domestic COIN capability and to prepare it for the expected onslaught from North Vietnam.

President Kennedy inherited US involvement in Vietnam with the backdrop of Chiang Kai-shek's retreat to Formosa in 1949, the stalemate for

7

Korea in the 1950s, and the failure in Cuba with the Bay of Pigs invasion in 1961. President Kennedy knew that the US reputation was on the line and sensed the rising tide of wars for "national liberation." Because of this, Kennedy was determined to demonstrate credibility and commitment with the US resolve in SVN to contain communism and prevent other regional Asian countries from falling victim to the communist "domino" effect. One of the first steps Kennedy took was the introduction of the Farmgate detachment into SVN to assist in their COIN efforts.

Overview of Farmgate

Program Inception

In April 1961 Tactical Air Command (TAC) activated the 4400th Combat Crew Training Squadron (CCTS) at Eglin Air Force Base (AFB), Florida. The squadron, code-named Jungle Jim, had a mission to train USAF personnel to conduct COIN operations. Seven months later in November 1961, a detachment of the 4400th CCTS deployed to Bien Hoa Air Base (AB), Vietnam, to assist in training the Vietnamese Air Force (VNAF), to develop more effective tactics and techniques, as well as to supplement the VNAF strike capability.[3] This detachment of the 4400th CCTS was designated Farmgate, and later designated Detachment (Det) 2A. The initial deployment of Farmgate included 151 officers, eight T-28s, four SC-47s, and four RB-26s.[4] Farmgate came under the operational control of Det 7, Thirteenth Air Force, which carried the classified title of 2d Advanced Echelon (ADVON.)

Concept of Operations

The Pacific Air Forces (PACAF) operations plan established two requirements for Farmgate: train the Vietnamese in COIN and develop or confirm tactics and techniques for COIN operations.[5] An implied mission was to do the things the Vietnamese could not do, such as augment their operations with unique night strike capabilities.[6] In theory the C-47s were to conduct aerial resupply, air drop paratroopers and perform psychological warfare operations. The T-28s and B-26s were to conduct close air support (CAS), interdiction, and armed reconnaissance.[7]

At the time of deployment, Farmgate personnel faced two of their greatest hurdles: a hazy understanding of the mission and a poor air support infrastructure in Vietnam. Initial operations were conceived for insurgency operations, not COIN operations. Aircrew trained for and expected to be used in situations behind enemy lines, going into small, unprepared fields and delivering special teams or equipment to small units.[8] Additionally, when the Farmgate pilots first arrived, SVN had no joint operations center (JOC) from which air support operations could be centrally directed. The rudimentary command and control (C^2) system used by the South Vietnamese did not provide adequate real-time airpower response to ground activity. An outpost could be under attack, and an airplane might not get on target for six days. The 2d ADVON established a JOC, but

the Vietnamese and US Army advisors were reluctant to use the capability until they trusted USAF air support to succeed in the conditions of SVN. To gain the trust of both the Vietnamese military and US Army advisors, airmen were forced to put on capability demonstrations to display what airpower could do. It was "a great deal of our effort during the first few months."[9]

Analysis of Operations

US Air Force Involvement

Prior to 1962, military operations in Vietnam came under the purview of the MAAG–Vietnam. The primary function of the MAAG was to oversee training and assistance to SVN. In response to President Kennedy's support for increased US involvement—for expansion of the Vietnamese armed forces and US advisory and support role—commander in chief Pacific (CINCPAC) established the US Military Assistance Command, Vietnam (USMACV) in February 1962. This reorganization placed direct responsibility for all US military policy, operations, and assistance to the RVN under one organization.[10] Operating under the assumption that MACV would be withdrawn once the Vietcong insurgency was brought under control, MAAG was retained in hopes of resuming its former mission; though after MACV stood up, it concentrated on the mission of administering the Military Assistance Program (MAP).[11]

USAF assets resided with the 2d ADVON, later designated the 2d Air Division (AD).[12] The 2d ADVON commander, Brig Gen Rollen H. Anthis, was triple-hatted in responsibility. In addition to commanding Det 7 (2d ADVON), he also commanded the Air Section of the MAAG and later served as air component commander for all of Southeast Asia (SEA).[13] Although he did not control the air attaché staffs, his authority did extend to the various detachments under the 2d ADVON. One detachment of significance was Det 8, located at Tan Son Nhut AB near the capital city, Saigon. Det 8 operated the combat reporting center, heavy radar, a photo processing cell, and the JOC. Second ADVON was also responsible for all temporary duty (TDY) and permanent party USAF personnel within these units.

Farmgate reported to commander, Pacific Air Forces through the 2d ADVON and Thirteenth Air Force. However, the detachment attempted to coordinate augmentation directly through the Special Air Warfare Center (SAWC), the parent organization of the 4400th CCTS at Eglin. To curb "end around" activity, the PACAF commander informed the 2d ADVON that any coordination of this nature should be defined by PACAF.[14] The subordination of Farmgate operations to the 2d ADVON may have clarified the C^2 of the unit. However, over time it resulted in "a decrease in support from SAWC in terms of weapons development, tactics, techniques, etc."[15]

Army of the Republic of Vietnam

In 1961 SVN was divided into four corps areas, which were further divided into nine tactical zones. Since SVN did not have an overall theater

commander, its corps commanders operated nearly autonomously, reporting directly to the South Vietnamese president.[16] The responsibility for regular military operations was under the domain of the division commander assigned to each tactical zone. Each zone embraced numerous provinces, which were the power base of the civilian administration in Vietnam.[17] The provinces were further subdivided into districts, villages, and hamlets, with hamlets being the smallest administrative unit. The province chief administered the province but also had the Civil Guard and Self-Defense Corps under his control—two paramilitary organizations with widely varying degrees of professionalism and military capability.[18]

A major difficulty in C^2 often arose between the division commander and the province chief. Though the division commander was granted complete control of military matters within the tactical zone, the province chief had a nonmilitary channel to appeal *each decision* of the division commander straight to the president if he so desired. This system forced division commanders to seek the concurrence of the province chief with most military matters, especially if combat operations were involved. The caveat was that the province chief could initiate paramilitary operations without the concurrence of the division commander.[19] There was a notable interplay of personalities involved between rival provinces attempting to exert control over the military to establish a power base.

Vietnamese Air Force

The VNAF was limited in numbers and capability well into mid-1960, although VNAF pilots did train and employ in US-supplied aircraft in the Farmgate missions. In 1961 the Vietnamese attack air force consisted of propeller-driven A-1s and F-8Fs.[20] They also possessed L-19s, C-47s, and a few H-19s. Although the VNAF held a place in the Ministry of Defense, the commander of the armed forces was also the general of the Army. In addition, the rank structure favored the Army. For comparison, an Army of the Republic of Vietnam (ARVN) division commander was a full colonel, the same rank as the commander of the entire VNAF in 1961, Colonel Vien.

The size and status of the VNAF meant it was not a force for strategic attack, nor did it have the infrastructure (intelligence, radar, and communications) to support large-scale combat operations. The air-ground coordination and training prior to 1962 was elementary and certainly unable to accept an increased tempo of operations. PACAF assessed the SVN C^2 for air operations as virtually nonexistent and that the "Vietnamese cannot provide it."[21] Another wrinkle in the air-ground issue was that each province employed its own cadre of four to six forward air controllers (FAC).[22] Although their permanent assignment to the province allowed the controllers to become very familiar with the local geography and terrain, they were poorly trained and had very little autonomy to control operations. Additionally, they needed to have a solid friendship with the province chief since any air strike needed to be approved by the province chief and the associated corps commander.

Factors Affecting the Role of Air Advisors

National Politics

The command link not addressed earlier was the US civilian element of control in 1961—that of the US ambassador to SVN, Ambassador Frederick E. Nolting Jr. As the head of the US military forces in SVN, the chief of the MAAG needed to make the ambassador aware of any changes in diplomatic or military policy in Vietnam. However, the initial concept of deploying the 2d ADVON was either misidentified or misinterpreted as a new military headquarters was being set up without consulting Ambassador Nolting. The immediate reaction was a firestorm of message traffic to verify and explain the mission, intent, and command lines for the 2d ADVON.[23] Perhaps because of this rocky start for the operation, the ambassador declined to permit full-up operations initially. He directed that no Jungle Jim combat missions could be flown unless authorized by him.[24] Obviously, introduction of combat forces/command structures was a political issue that could have implications beyond the battlefield.

This same negative sentiment towards US forces in SVN surfaced later as the war progressed and Farmgate operations increased and expanded in scope. In a joint Department of State/Defense message, both secretaries expressed concern to the ambassador and USMACV about the emphasis of air activities in Vietnam in the US press. Details of a strike made on 8 February 1963 attracted attention with possible deaths of noncombatants.[25] The presence and application of airpower to solve a tactical military problem became a strategic political issue. Regardless of how the force application aspect of airpower was perceived, the ambassador approved of the psychological warfare ability of airpower and recommended its "more widespread use."[26]

The RVN viewed its air assets as both a capability and as an internal threat. Because of the nature of the insurgency, political lines were also drawn in the military, though sometimes in the shadows. The ground forces required logistics and time to move, and they were under the control of the corps and division commanders. As such, they were not seen as rapidly mobilized threats. The air forces, however, were not bound by the same logistical tether and could strike South Vietnamese targets if commanded or operated by personnel opposed to the government. In fact, this occurred in February 1962 with an attack on the palace.[27] Because of the perceived potential internal threat posed by the air force, the VNAF was not accorded the same trust and was not given the same priority for operations as the ground forces.

US Interservice Competition

The TAC commander, Gen W. C. Sweeney, was concerned with what he considered a lack of coordination in SVN between air and ground forces. He believed "airpower's voice was too small" and so informed USAF Chief of Staff Curtis E. LeMay.[28] Concurrently, Gen Emmett O'Donnell Jr., PACAF commander, recommended that the USAF increase the forces in

11

the Farmgate detachment. Both commanders felt that US Army aviation, which also began arriving in 1961, was encroaching on the combat aviation mission of the USAF.[29]

These competitive feelings surfaced frequently and were addressed as an item of concern by members of a staff assistance visit as late as 1964. The fear was that the air officers were being "squeezed out" of air operations planning and execution. The problem lay in the air liaison officer's (ALO) inability to commit assets during combat planning conferences:

> The ALOs lack bargaining power at the planning conference because he has no USAF or VNAF aircraft that he can definitely commit without approval of higher authority. This contrasts with the senior U.S. Army Advisor at Corps and Division level, who often possesses permanently allocated Army aviation which he can offer, commit, withdraw, and control according to his participation in the planning. Inevitably, some requests for air assistance fall directly to the Army aviation element because of the timeliness of the response. The poorer response of the VNAF/USAF aircraft in terms of time is not an inherent weakness of airpower, but reflects the ARVN command channels and communications problems existing in Vietnam. The armed Army aviation is not subject to the same restrictions on rules of engagement that have been imposed by 2nd Air Division and which may have outlived their usefulness.[30]

To further complicate matters, US Army aviation allocated to the corps was available to individual ground commanders for unilateral employment. Most US Army aviation activities were not coordinated with the tactical air control system (TACS).[31] In effect, the US Army airpower in the form of their armed helicopters operated independently from central control and without the hindrance of the rules of engagement (ROE).

Cultural Factors

Many US personnel did not develop the feeling of "belonging to an organization" in SVN because they were scheduled for short-duty rotation on TDY to support combat operations.[32] Because of this, TDY personnel would send operational data to their "home" units before it had been collated with other "in country" operational information. This reduced its effectiveness because it was not processed through the correct channels. Along with the lack of sense of belonging, the somewhat covert nature of the operation meant that personnel could not share the results of their operations, nor did they have a good sense of where they "fit" in the grand scheme of things.[33]

The short TDY rotation cycle also hampered development of good working relationships between US–VNAF counterparts. Just about the time Vietnamese would learn to respect and trust the US airmen, they would leave at the end of their TDY tour, which forced the Vietnamese to adjust to another person. In contrast, the Vietnamese pilots knew only war. Though they may have been deficient in some regards with respect to equipment and training, the VNAF fought the war day in and day out, with no end in sight. This difference in mental approach to the war created a barrier for US airmen, and sometimes meant that they received information concerning the war only when they had "proved" themselves committed to supporting SVN.

Not only did short tours make establishing good working relationships difficult but US pilots did not gain enough experience and familiarity with the terrain, geography, and the threats to become fully effective in combat.[34] The longer the pilot had to acquaint himself with the environment, the more capable he became in distinguishing enemy movements and developing the sense of situational awareness necessary to respond to the dynamics of combat.

Command, Control, and Operations

Tasking Air Assets

When Farmgate operators initially integrated into the VNAF air control system, they faced a vestige of former French operations in the country. For preplanned requests for air support, the divisions initiated a request to the corps-level tactical operations center (TOC). Typically, a junior, inexperienced ALO would attempt to validate the request. If approved the request would be routed to the Joint General Staff (JGS) in Saigon. JGS personnel (not necessarily air force) would determine validity and assets available and, if approved, would send the tasking to the appropriate air operations center (AOC). The AOC then executed the mission, and the JGS would inform the corps of the approved mission.[35]

To upgrade the process, the USAF installed a JOC. The JOC was meant to be the hub of USAF planning operations, which was the core of the TACS.[36] However, lack of VNAF participation in the JOC caused deficiencies in the overall operation of the TACS. The JOC had a VNAF director, who was rarely present due to other duties, and a USAF deputy director. Another hindrance to planning was that the VNAF chief of Combat Plans Division took no active part in conducting the operational planning of the division. USAF strike plans officers accomplished the actual detailed planning.[37] The VNAF preferred to place their air assets on ground alert status, thereby negating the need to accomplish prestrike mission planning. This failed to satisfy USAF criteria for providing the right air support for the particular operation—that is, getting the right aircraft with the right ordnance over the correct location at the correct time.

The coordinating product of the JOC was the Air Fragmentary Order or "frag order." The frag order was designed to task both US and VNAF operations by detailing mission information, unit, and aircraft tasked and to provide coordinating instructions. The frag order was used as a directive in the Farmgate operation, but the frag order was in English and connectivity to Vietnamese through secure teletype circuits was not convenient. Therefore, the frag order was sent "in the clear" (transmitted via nonsecure means) to VNAF facilities, with the probability that they were keeping the Vietcong informed of air operations.[38] Adding to an already frustrating situation for the US planning cell, the VNAF officers and enlisted personnel adhered to the tradition of enjoying a three-hour siesta in the midday. Halting work during this time of peak operations planning affected planning and training of VNAF personnel.[39]

13

Finally, in the early 1960s, the Vietnamese hamlets and villages were not a very cohesive group. One village might not know who was the chief of the next village. Yet aircraft on call had to get permission from the province chief before any strikes or attacks were made.[40] Even when a hamlet or village wanted to request air support, those requests usually had to be made by telephone. The JOC did not centrally control all tactical airpower in SVN. The preponderance of tactical aircraft fell under the control of VNAF headquarters. This limited the real-time effort of the JOC to act in its stated capacity as the "operations center"—such as diverting airborne FAC missions to adjacent areas to control strikes generated by other means.[41]

Mission Planning and Targeting Guidance

ARVN participation in the JOC was ineffective. Field commanders and corps representatives did not have up-to-date information on ground operations nor did they have the authority to make decisions. However, their input was needed to prioritize and apportion air support accurately. To transmit needed information, the ARVN representative used nonsecure phone lines to contact headquarters on urgent matters. This activity consumed valuable time in the planning process and exposed operations to security violations.[42]

Finding lucrative Vietcong lines of communication targets was not easy. General Anthis, 2d ADVON commander, described the difficulty in identifying targets: "The roads there, for example, and the bridges—the roads were paths through the jungle, and they're pretty hard to see from the air; as a matter of fact, in many cases, almost impossible to see from the air. And their bridges were either vine or rope that's been slung across a river or a creek, or it could be a log across the river; or it could be just a regular old ford where they walk across a shallow place across the river. Their railroads were, in many cases, the big buffalo, the elephants, things of this nature which they could carry their large pieces on."[43]

Combat Intelligence

One of the most serious drawbacks to effective employment of airpower in SVN was the lack of a national intelligence system to provide timely target information. Though TACS attempted to disseminate target information to various command levels for rapid decision making, the VNAF did not possess the intelligence function or infrastructure to support real-time air operations. Their maps and charts were inaccurate, intelligence data collection capability was unavailable; and intelligence exploitation, such as photographic reconnaissance interpretation, was virtually nonexistent.[44]

Nonetheless, the USAF depended greatly on their Vietnamese counterparts to provide intelligence concerning the Vietcong. Much of it was gained from defectors or peasants who had been mistreated by the Vietcong. Additional information came from those groups that supported the South Vietnamese government. Americans, few of whom spoke Vietnamese, had great difficulty in obtaining grass roots information. Even when the South Vietnamese offered intelligence, US planners could never be sure of its reliability or accuracy.

Other Significant Issues

Rules of Engagement

Other than prohibiting overflights of other countries, the VNAF had no ROE. Therefore, the USAF not only established their own but recommended ROE for the Vietnamese JGS to consider.[45] The ROE for the USAF in SVN were very restrictive, and necessarily so, for two reasons: (1) it was difficult to distinguish between the enemy troops and friendly noncombatants, and (2) US leadership, both military and civilian, did not want this to be an American war. To help reduce the problem of target misidentification and provide legitimacy to US air operations, early ROE mandated that a qualified Vietnamese observer be on board combat and combat-support flights.[46]

The only case where an American could direct USAF air strikes was the case where US Army Special Forces established a target and received Vietnamese government representative approval. In this case, aircraft were scrambled and under the control of the US Special Forces controller on the ground (the target was still authenticated by the Vietnamese representative).[47]

Both the USAF and VNAF pilots considered the requirement for a Vietnamese observer as unsatisfactory and detrimental to the mission. The VNAF pilots did not like the duty, and thus nonqualified VNAF enlisted airmen—who sometimes became violently ill in flight—often filled the role.[48] Requiring a VNAF pilot to accompany a USAF pilot in the backseat during a T-28 attack mission also reduced the availability of VNAF pilots for training in the front seat, one of the primary functions of Farmgate.

Training

The VNAF pilots were competent in day operations; attack pilots and more VNAF pilots were needed to fill the cockpits of the increasing numbers of US-supplied aircraft. The "Dirty Thirties" made some of the greatest contributions to supplying more pilots. Thirty C-47 pilots flew with the VNAF squadrons, which allowed 30 VNAF pilots to train in the fighter (T-28) program. One of the benefits of this program was that the VNAF C-47 squadrons produced visible gains in tactics and procedures by flying with the US pilots. The US pilots were able to make this happen because they lived, ate, and worked with their VNAF counterparts. The other benefit was freeing up VNAF pilots to train in fighters. The operational tempo made it difficult to devote any time or sorties to training the VNAF pilots. With the personnel exchange, VNAF pilots could pursue training in more advanced attack aircraft and procedures.[49]

Although the VNAF pilots were competent in day operations, they did not employ or train for night operations. Fortunately, one of the loopholes that the US ROE left open for US-only operations was the guidance that missions using US personnel or aircraft could be undertaken if the capability of the VNAF was lacking because of either training or equipment.[50] To fill this tactical void, the Americans proceeded at their own pace in

night attack operations because the VNAF was not trained or equipped for these missions.[51]

Equipment

The Vietnamese had deplorable maintenance, which caused concern about possible serious maintenance deficiencies if additional aircraft were delivered and if their flying hour program accelerated.[52] This same trend was exhibited with radios installed by the United States Operations Mission to facilitate air requests. Of the 1,500 radios installed, approximately 40 percent were inoperable due to poor upkeep.[53]

Hamlets throughout SVN did not have radios to communicate directly with friendly fire support aircraft. To compensate for this deficiency, the hamlets devised innovative methods to direct CAS at night. Hamlets would have a large movable arrow on the ground. When a hamlet came under attack by Vietcong, villagers would put lighted cans of oil on the arrow so that it could be seen from the air once the supporting aircraft flew into the area. The direction of the arrow indicated the direction from which the Vietcong attack was originating. The friendly attack aircraft would then drop flares over the approximate position and attack the Vietcong when they were sighted.[54]

Lack of communications also affected attempts to support ground convoys. Often the ground convoys or ground forces did not have radios to contact strike escort aircraft. Additionally, USAF and US Army communication systems operated on mismatched frequency spectrums. US Army helicopters attempting to rendezvous with ground personnel often did not communicate with the strike aircraft at all, or if they did, it was after the rendezvous was complete. This mismatch was complicated even further by different types of strike aircraft having different communication equipment.[55]

Farmgate Counterinsurgency Operations: Lessons Learned

The Farmgate detachment faced incredible challenges when they touched down and helped to combat a foreign insurgency. USAF personnel struggled with the high-level problems of competing for control of air assets with the US Army, and they gained the trust of both the South Vietnamese president and the US ambassador while defining the lines of command for the organization. Farmgate airmen also helped to install and validate a TACS and also developed a JOC that facilitated the combat planning process. This action required an influx of personnel and equipment to build and maintain the radar sites, communications network, and intelligence centers necessary to provide support to the TACS and JOC.

Another task was improving SVN's air force through pilot training and upgrading maintenance procedures. To accomplish this, personnel faced barriers such as language and culture. Additionally, lack of continuity caused by the personnel rotation policy forced a new beginning in building relationships every few months. USAF pilots were mentally torn between wanting to "get into the action" to prosecute the war themselves and providing a solid training base to the South Vietnamese.

As they prosecuted the war alongside their South Vietnamese counterparts, US airmen wrestled with marginal intelligence, communications

equipment problems, and identifying friend from enemy. Even with sound intelligence concerning the locations of Vietcong units, once aircraft were over the target, even the South Vietnamese observers had trouble distinguishing insurgents from innocent civilians.

Along with other military operations, between 1961 and 1964 Farmgate accomplished much to keep SVN from falling to the insurgents. They experienced a good deal of information on tactics, munitions performance, and COIN operations. After three years a second Farmgate-like squadron stood up to assist in performing the same mission.[56] Fortunately, they benefited from the lessons learned and accomplishments of the first squadron. However, their entrance into the war only continued to make it more of an "American" war and less of a "South Vietnamese" war.

Notes

1. Robert F. Futrell, *The United States Air Force in Southeast Asia: The Advisory Years to 1965* (Washington, D.C.: Office of Air Force History, 1981), 7.

2. Robert S. McNamara, *In Retrospect, The Tragedy and Lessons of Vietnam* (New York: Times Books, 1995), 37.

3. History, 2d ADVON, 15 November 1961–8 October 1962, 1. Operation Farmgate is alternatively referred to as Farmgate, 1st Air Commando Squadron, Det 2, and Det 2A. All titles refer to the squadron of US personnel stationed at Bien Hoa Air Base (AB), Vietnam, specifically assigned to fly with and train the VNAF.

4. Arthur C. O'Neill, chief, Historical Division, Office of Information, *Fifth Air Force in the Southeast Asia Crisis (A Sequel)*, 30 January 1962, 30; and Philip D. Chinnery, *Any Time, Any Place: Fifty Years of the USAF Air Commando and Special Operations Forces, 1944–1994* (Annapolis, Md.: Naval Institute Press, 1994), 68. Instructions came from PACAF that all B-26 spares including engines would be shipped to Clark AB in the Philippines, all markings would be removed, and the material would be marked for "Project Farm Gate." The material was to be picked up on that depot's account as "found on base." The C-47s were cargo aircraft, configured for supply drops and psychological operations. The B-26s were twin-engine World War II attack bombers and carried the designation RB-26 to denote reconnaissance capability, thereby circumventing the 1955 peace agreement precluding introduction of bomber aircraft. The T-28s were single-engine training aircraft, modified to carry machine guns, rockets, and bombs.

5. Message, TSC-PFOCC-S 61-170, commander, Pacific Air Forces (CINCPACAF), to commander, Thirteenth Air Force, 4 December 1961 (included in Project CHECO Southeast Asia Report, Part V-A, Supporting Documents, October–December 1963). Farmgate carried the training function as a cover, while the covert mission was to support VNAF actions against the Vietcong within the borders of South Vietnam.

6. M. M. Doyle, commander, Det 2 (Farmgate), transcript of oral interview by J. Grainger, 16 February 1963, Bien Hoa AB, Vietnam (included in History, Second Air Division [2d AD]), 15 November 1961–8 October 1962, vol. 3, Supporting Documents, 23).

7. Project CHECO Southeast Asia Report, Part V, Air Operations, October 1961–December 1963. The B-26 was configured to perform photoreconnaissance, whereas the T-28 was limited to a visual reconnaissance role.

8. Rollen H. Anthis, commander, 2d AD, transcript of oral history interview by Dean S. Gausche and J. W. Grainger, 30 August 1963, US Air Force Historical Research Agency (USAFHRA), Maxwell AFB, Ala. (included in Project CHECO Southeast Asia Report, appendix 2, COIN interviews, October 1961–December 1963).

9. Doyle interview, 192.

10. History, Commander in Chief, Pacific, 1962: Project Corona Harvest, AFHRA K712.01 62/01/01-62/12/31, 153.

11. George S. Echhardt, *Command and Control 1950–1969*, Vietnam Studies series (Washington, D.C.: Department of the Army, 1974), 28.

12. Reference to 2d ADVON or 2d AD is used throughout this chapter. The 2d AD designation occurred in October 1962. Use of ADVON or AD is merely an indication of the time period in question.

13. O'Neill, 15. The designation of air component commander was a role under the command structure of USMACV.

14. History, Tactical Air Command (TAC), 1 July–31 December 1962, 118.

15. Chief, PACAF Assistance Team, memorandum to Headquarters 2d AD, subject: Special Assistance Inspection, September 1964, 9 (included in History, 2d AD, January–June 1964, chap. 2, USAF Operations, Supporting Documents).

16. William W. Momyer, *The Vietnamese Air Force, 1951–1975, An Analysis of Its Role in Combat*, USAF Southeast Asia Monograph Series, vol. 3, Monograph 4, Charles McDonald and A. J. C. Lavalle, eds. (Washington, D.C.: Government Printing Office, 1975), 9.

17. A "province" corresponded roughly to a "state" in the United States; however, the province chief was appointed by the country's president.

18. Robert M. Gurfield, operations analyst, and Richard T. Sanborn, chief, Operations Analysis, Operations Analysis Memorandum No. 2, Air Request System and Supporting Communications, 2d AD, 27 October 1962, 5. As of 1962, US Military Assistance Programs supported both the Civil Guard and Self-Defense Corps organizations.

19. Gurfield and Sanborn, 5.

20. Raphael Littauer and Norman Uphoff, eds., *The Air War in Indochina* (Boston, Mass.: Bacon Press, Cornell University, 1972), 173–74; and Carl Berger, ed., *The United States Air Force in Southeast Asia, 1961–1973* (Washington, D.C.: Office of Air Force History, 1977), 9. Various sources credit the VNAF with either or both of the A-1 and F-8F assets. The important detail to note is both attack aircraft were World War II vintage whose condition was poor based on lack of maintenance, and the VNAF possessed less than 70 aircraft overall (Project CHECO, Part IV, *Command Structure/Relationships Oct 61–Dec 63*, Southeast Asia Report, October 1961–December 1963).

21. Emmett O'Donnell Jr., CINCPACAF, memorandum to commander in chief, Pacific (CINCPAC), subject: Proposal for Tactical Air Control System, 13 November 1961 (included in Project CHECO Southeast Asia Report Part V-A, Supporting Documents, October 1961–December 1963).

22. Charles Lane, "The Pilot Shark of El Salvador," *New Republic*, 24 September 1990, 27–32.

23. Message, 251012Z NOV 61, Ambassador Nolting to CINCPAC, 25 November 1961 (included in Project CHECO Southeast Asia Report, Vol. IV, Part A). Ambassador Nolting found it "incomprehensible that new U.S. military headquarters would be established in this country without consultation with [him] or with the government of Vietnam." He further went on to postpone the establishment of the 2d ADVON until (1) the State Department concurred with activation, (2) exact details of the command relationship were explained to all parties, and (3) the government of Vietnam concurred with establishment of such. Specifically concerning operations, the ambassador sent, "I would in particular wish precise understanding that any combat or quasi-combat operations in Viet-Nam carried by elements of this command be cleared in advance with me."

24. History, CINCPAC, 1961, 188.

25. Message, 112129Z NOV 63, chief of staff of the Air Force to CINCPACAF, 21 November 1963; and Message, 082205Z DEC 62, secretary of state, to ambassador, American Embassy, Saigon, 8 December 1962. The initial joint message concluded, "As you know, for some time the State Department has had reservations about the net value of air operations in Vietnam, info furnished by you will be used to support AF position on this subject as required." Earlier guidance from the State Department placed border restrictions on US air operations, hoping to avoid the above type situation. Stating that the "political significance at present . . . certainly outweighs probable military advantage of air operations in border area," Secretary of State Dean Rusk went on to say, "Politically, the count against us now is two and three-quarters strikes. Militarily, there is general agreement that success lies not in drawing tight cordon sanitaire in Maginot manner along vaguely defined frontier," to highlight the political risk of overextending airpower's limits in the counterinsurgency. Both messages are included in Project CHECO Southeast Asia Report, Part III-A, Supporting Documents October 1961–December 1963.

26. Project CHECO Southeast Asia Report, Part V, Air Operations October 1961–December 1963, 84.

18

27. Anthis interview; and Futrell, 129. Two Vietnamese pilots who diverted the AD-6s from a planned strike in the delta and instead targeted President Diem's palace staged this attack.

28. History, TAC, 24–25.

29. Ibid., 5–7. The Air Force and the Army at this time had just been through an intensive reexamination of organic aviation requirements. Secretary of Defense Robert S. McNamara directed the Army to examine just this issue and the United States Army Tactical Mobility Requirements Board (the "Howze Board," for its board chief, Lt Gen Hamilton H. Howze, commanding general XVIII Airborne Corps) conducted many weeks of investigation into the role of tactical airpower. Many in the Air Force believed the Army was attempting to gain control of air assets, command and control, and the mission of close air support (to include air superiority) in support of ground operations.

30. Chief, PACAF Assistance Team, 7.

31. Air Force Test Unit, Vietnam, Discussion of MACV Directives Relating to Control and Coordination of Air, staff study, November 1963, and Tactical Evaluation Directorate, CHECO Division, Headquarters PACAF, Control of Air Strikes in SEA 1961–1966, Project CHECO Report, 1 March 1967.

32. Rollen H. Anthis, transcript of oral history interview by S. E. Riddlebarger and C. V. Castellina, November 1969, 6–7, USAFHRA, Maxwell AFB, Ala. Anthis was the initial commander for the 2d ADVON (later 2d AD) until January 1964. Many personnel were rotated on a TDY support basis on a 30-, 60-, or 90-day rotation policy.

33. Anthis interview, November 1969, 16.

34. Briefing, Secretary of Defense Book, items for discussion with the secretary of defense, CINCPAC, 15 January 1962.

35. Momyer, 10.

36. Lane. The joint operations center was renamed the joint air operations center, the air operations center, and finally in 1965 the tactical air control center. Reference to any of these terms represents the same facility and function. The tactical air control system was the entire network of combat reporting centers, air support operations centers, air liaison officers, and forward air controllers which, combined, attempted to plan, coordinate, and control USAF and VNAF air operations.

37. Charles D. Easley, deputy director, 2d Joint Operations Center, memorandum to Colonel Anderson, deputy commander 2d ADVON (2d AD), subject: Deficiencies in the Tactical Air Control System, 1 July 1962 (included in History, 2d AD, 15 November 1961–8 October 1962, vol. III, Supporting Documents), 123.

38. Ibid., 124.

39. Ibid., 126.

40. Joseph H. Moore, transcript of oral history interview by Samuel E. Riddleberger and Valentino Castellina, 22 November 1969, 7, USAFHRA, Maxwell AFB, Ala. General Moore held the position of commander, 2d AD and deputy commander USMACV for Air, January 1964–July 1966.

41. Easley, 123–26.

42. Ibid.

43. Anthis interview, November 1969, 28.

44. Secretary of Defense briefing, 15 January 1962.

45. Message, 230432Z, JAN 62, CINCPAC to chief, MAAG Vietnam, 23 January 1962 (included in Project CHECO Southeast Asia Report, Part V-A, Supporting Documents, October 1961–December 1963). The SVN JGS approved the recommended ROE in April 1962.

46. Message, 202238Z DEC 61, CINCPAC to chief, MAAG, Vietnam, 20 December 1961 (included in Project CHECO Southeast Asia Report, Part V-A, Supporting Documents, October 1961–December 1963); and Anthis interview, 30 August 1963. This message seemed to put the last nail in the coffin on the issue of having a qualified SVN observer in the aircraft. The requirement for VNAF observer did not reach 2d ADVON until the first Farmgate attack mission was airborne . . . without VNAF observers. Interestingly, official guidance from USMACV on this issue was not published until November 1962. USMACV Directive Number 62, Operational Restrictions on US Aircraft in South Vietnam, 24 November 1962 (included in Project CHECO Southeast Asia Report, Part V-A, Supporting Documents, October 1961–December 1963).

47. Doyle, 194.

48. Commander, Det 2 Alpha, memorandum to commander, 2d ADVON, subject: Monthly Report on Development of Tactics and Techniques, 5 June 1962; and Anthis interview, 30 August 1963, 19. In order to make sure the VNAF observers would be available for missions, 2d ADVON requested and received approval to feed SVN personnel in US mess halls to make them stay around. Though many VNAF personnel did not like to sand-bag (sit as observers in the aircraft), they at least received a good meal for their troubles.

49. Anthis interview, 30 August 1963, 20.

50. USMACV Directive Number 62.

51. Victor B. Anthony, *The Air Force in Southeast Asia, Tactics and Techniques of Night Operations 1961–1970* (Washington, D.C.: Office of Air Force History, 1973) and Project CHECO Southeast Asia Report, Part V, Air Operations, October 1961–December 1963. Extensive accounting of development and effectiveness of night operations in South Vietnam are found in these two references.

52. Secretary of Defense briefing, 15 January 1962.

53. Gurfield and Sanborn, 9.

54. Anthis interview, November 1969, 29.

55. Commander, Det 2 Alpha, memorandum to commander, 2d ADVON, subject: Monthly Report on Development of Tactics and Techniques, 6 November 1962; and Gurfield and Sanborn, 7. A contributing factor to mismatched communications capabilities stems from initial installation of the civilian communications network to unite the hamlets into village, district, and province headquarters. The United States Operations Mission specifically selected communications equipment that deconflicted with military communications systems. The reasoning was that the installation of 6,000 additional radios would overload the frequency spectrum already in use. Unfortunately, this meant these communications systems were not directly available to request or contact emergency military assistance.

56. Futrell, 272. The squadron was designated the 602d Fighter Commando Squadron, which was activated October 1964.

Chapter 3

El Salvador Insurgency, 1981–92

U.S. policy toward El Salvador represents an attempt to formulate a new approach to a painfully familiar problem. The essence of that approach has been to provide a besieged ally with weapons, ammunition, and other equipment, economic aid, intelligence support, strategic counsel, and tactical training—while preserving the principle that the war remains ultimately theirs to win or lose.

—A. J. Bacevich et al.
American Military Policy in Small Wars

Origins of Conflict

El Salvador, about one-eighth the size of Vietnam, rests in America's strategic front yard in Central America. In the 1960s El Salvador was a country dominated by the "fourteen families," an elite landed oligarchy, which coupled with high population density, resulted in social unrest manifested in an outflow of Salvadoran refugees to Honduras.[1] Fearing Salvadoran attempts to annex the southern portion of Honduras where the refugees resided, the Honduras government ordered the expulsion of the Salvadoran immigrants, which led to the "Soccer War" of 1969.

Refugees forced back into El Salvador caused land shortages, high unemployment, and widespread dissatisfaction which, in turn, led to vigilante death squad activity by the Salvadoran security forces to quell the unrest. This, in turn, galvanized civilian-based protection groups, which eventually united into the Farabundo Marti de Liberation Front (FMLN.)[2] The FMLN then became the lead group to organize and execute the guerrilla operations of the insurgents.

The "official" birth of the Salvadoran civil war of the 1980s began with a military coup in 1979. The coup installed a military-civilian junta led by Lt Col Adolfo Majono.[3] This first junta was ineffectual in reforming the elitist status quo. The fourteen families—supported by the army and security forces—countered attempts at social reform, improving human rights, or bringing death squad leaders to justice. Majono's inability to bring about change only strengthened the position of the rebels with the population. A second junta—whose civilian element was led by the Christian Democratic party—botched an attempt at land reform in 1980, again exacerbating the social unrest and reinforcing popular support for the FMLN.[4]

Overview of Operations

US Involvement

Concurrent with operations in El Salvador, US Southern Command (SOUTHCOM) remained abreast of other subversive operations and insur-

21

gencies in more than one-half of the countries in its area of responsibility. This meant the eyes of other Latin American countries were on the United States as it provided support to the Salvadoran government. Gen Jack Galvin, CINCSOUTHCOM, perceived it was vitally important for the United States to wear the "white hat" as it assisted El Salvador.[5] He understood that public opinion wielded considerable influence both in the US Congress and with the Latin American partners; he was determined to provide the professional interface to improve Salvadoran capability to fight the war and avoid turning the conflict into an American war.

To assist El Salvador in its effort, President José Napoleón Duarte requested and received American support in the form of financing, military assets, and trainers.[6] Duarte, in conjunction with the US country team, aimed to keep this war under Salvadoran control and limit the amount of US influence. Thus, in 1981 the United States placed a limit of 55 trainers that could operate in El Salvador at any given time.[7] US personnel could not participate in combat operations or train below the brigade level within El Salvador. Though this restriction never clearly defined limitations for air operations training, USAF trainers were not allowed to fly missions with or physically put "hands on" Salvadoran combat equipment.[8]

The United States remained within the restriction of "no more than 55 US trainers in El Salvador," only if one overlooked how the 55 were counted. In 1984, as an example, 11–16 members worked at the Military Group at the US Embassy; 20–25 medical trainers operated throughout El Salvador; private US contract personnel provided maintenance on US-supplied aircraft; and at least 26 members served on the staff of the defense attaché's office. The 55-person cap on trainers excluded all of these individuals. Depending on the number of TDY personnel serving in these excluded positions, the population of US military numbered up to 100 personnel.[9] In addition, more than 1,000 US military members were stationed in Honduras flying reconnaissance missions and training Salvadoran soldiers at the Regional Military Training Center (CREM, its Spanish acronym).[10]

Salvadoran Military Strategy

El Salvador pursued three separate strategies to defeat the FMLN. From 1981 to 1983, the government concentrated on building up its conventional ground and air forces. In 1981 the junta requested a US assessment of the Salvadoran armed forces. At the direction of the Office of the US Joint Chiefs of Staff, Brig Gen Fred Woerner conducted an in-depth survey of the Salvadoran military; and he produced a report outlining the support and force structure required to combat the insurgency.[11] In his report General Woerner presented three options predicated on increased US assistance: avoid defeat, gain and maintain the initiative, and destroy the insurgents' will and capability to fight.[12] Based on recommendations of the Woerner report, and with considerable US aid, El Salvador nearly tripled the size of its armed forces and increased military training both inside and outside the country.

After significant expansion, in 1983 the Salvadoran Army initiated a program known as the National Campaign Plan.[13] Under this plan the

Army aimed to clear and hold rebel-dominated territory, thereby giving the local populace an umbrella of security. The Army hoped to then initiate civic action in the held territory to win the support of the people. Unfortunately, the rebels refused to engage and instead employed guerrilla tactics to inflict substantial casualties on the army. In the words of the US ambassador to El Salvador, Thomas Pickering, the army had "not shown the capacity to deal with the counteroffensive and the intent of the plan."[14]

Under the next plan, the *Unidos Para Reconstuir* (UPR), President Duarte, the defense minister, and the army chief of staff agreed in March 1986 to create the National Joint Coordination Committee.[15] This agreement established a chain of command from the 14 national departments to the army chief of staff and attempted to unite military and civilian activities in a coordinate COIN war campaign. As part of the new military strategy under the UPR, the army reverted to more conventional "sweep" operations to seek out and destroy the rebels. The Salvadoran Air Force (FAS) increased the intensity of aerial bombardment in the five northeastern departments where the rebels were most active. The stepped-up air war had two objectives: to disrupt the insurgents' ability to conduct mass attacks and to drive civilians out of the areas controlled by the rebels, hoping to deny the rebels a base of logistical support.[16] The Salvadoran military continued these types of operations well into the late 1980s, eventually culminating in a strategic stalemate with the insurgents in 1989.

Analysis of Operations

US Armed Forces

All of the US military trainers serving in El Salvador reported administratively to the US Military Group. However, since there was no US combat or combat support infrastructure, the military members were farmed out to their respective service functions for training duties. For the USAF, this meant only *five* personnel assisted the FAS in the capacity of maintenance officers or instructor pilots. In 1983 a snapshot of the USAF trainers in country revealed a USAF section chief and a combination of four maintenance technicians and instructor pilots.[17]

The USAF trainers provided technical advice on maintenance and training procedures. Additionally, they could provide limited operational and tactical military advice; but they could not physically perform functional procedures on Salvadoran equipment.[18] This restriction prohibited USAF maintenance technicians from working on aircraft or loading armament and prohibited pilots from flying with Salvadorans on combat or combat support missions.

Salvadoran Army

There were six Salvadoran brigade commanders, and each controlled military operations in a military zone. Each military zone contained one or more of the 14 civil government departments (department is similar to a province), and each was controlled by a department commander. Because

of the high degree of centralized control in the Salvadoran armed forces, the departmental commanders operated quasi-independently, conducting operations within their zone.[19] Enlisted men were forced into service, press-ganged off the street, and made to serve in the various security forces or army.[20] The officer corps represented the social elite and trained at the military academy before commissioning. El Salvador also operated the Salvadoran National Guard, the National Police, and the Treasury Police. These three organizations, adequate for maintaining peacetime order, operated on a paramilitary basis with no cohesive command structure and were not suited to wartime operations.[21]

Salvadoran Air Force

El Salvador first saw air combat when one of its pilots flew a Wright Flyer during the civil war in Mexico in 1917.[22] Supplied primarily by the United States, the FAS flew primarily World War II combat aircraft during the 1969 Soccer War with Honduras.[23] Aircraft such as the Israeli (originally French) Ouragan fighter-bombers of 1950s vintage eventually replaced their inventory of World War II aircraft. By 1979 the FAS had approximately 20 obsolete helicopters and fixed-wing aircraft. As a result of continued imports and US upgrades, the FAS grew to over 135 aircraft in 1988.[24] The United States supplied A-37s for fighter-bomber operations, O-2As for armed FAC and reconnaissance operations, and AC-47s for gunship operations.[25] UH-1s and Hughes 500 helicopters provided additional attack and reconnaissance capability as well as troop transport.[26] The FAS also operated its own paratroop battalion and performed assault operations independent from army ground missions.[27]

Factors Affecting US Training Mission

Salvadoran National Politics

After the 1979 coup, a civilian-military junta ran the Salvadoran government until 1982 when an assembly was elected. In 1984 Salvadorans elected Duarte as their president in the first free elections in over a decade.[28] However, because of the historical role the military played in ruling El Salvador, the government exercised "no effective control over the decisions of the Salvadoran military."[29] The autonomy of the military made it practically impossible to punish corrupt military officers.[30] There was no formal system of punishment for members of the Salvadoran armed forces. Since the legal system in El Salvador was virtually nonexistent, most military criminals received no punishment at worst, and, at best, were relocated to lucrative civil posts. As an example, after the 1979 coup, more than 100 officers were forcibly retired because of abuses of authority. By 1982 as many as 60 of them were reinstated in military positions. One of the worst offending colonels was removed and later named head of telecommunications in El Salvador.[31]

This lack of civilian control over and lack of professionalism in the Salvadoran armed forces left El Salvador with a military that acted on its own

behalf with savage actions against civilian noncombatants.[32] US trainers from all services faced the monumental task of upgrading Salvadoran military capabilities and tactics, which first required professionalizing Salvadoran armed forces. Efforts to professionalize the Salvadoran officer corps met with resistance until US national security assistance to El Salvador became a bargaining chip. During an official trip to San Salvador in December 1983, Vice President George Bush "provided categorical assurances" to El Salvador's military that the US would terminate all assistance in the event the military did not support and protect the upcoming Salvadoran national elections and develop a respect for human rights. By 1987 the number of political murders for both sides had dropped to 23 per month, down from 610 per month in 1980.[33]

Salvadoran Interservice Competition

As with most third world countries, the social elite populated the officer corps; and entrance into the Gerardo Barrios Military School was often limited to family of current or past officers. The officers of each graduating class, or *tanda*, formed close bonds and maintained those ties throughout their military careers. Officers within a *tanda* cooperated to enhance one another's political position and participated openly in corrupt activities for personal financial gain.[34]

Because of the *tanda* system, the armed forces traditionally ran more like the Mafia than a brotherhood in arms. Corruption was endemic to the corps, with the local joke being that the ranks of the officer corps were "lieutenant, captain, major, lieutenant colonel, and millionaire."[35] The Armed Forces Security Council, the ruling body of the military, was composed of seven to 10 of the top-ranking officers representing the most powerful *tandas*. Leonel Gomez, advisor to El Salvador's military council, observed in 1982:

> For five prosperous years, the Council members and their allies within the armed forces will become fabulously wealthy through systematic corruption, fraud and kickbacks. At the end of five years, the Council members retire, and the next class of *tanda* [italics in original] leaders move in to take their place. . . . The Army's relationship with the country's economic elite is a mutually beneficial one. The oligarchy needs the Army to keep a starved and restless peasant workforce on the job for $133 a year. But the Army needs the oligarchy as well, to keep the economy going. Immense profits go to top officers from kickbacks from government contracts with large businesses and industries.[36]

One of the most powerful *tandas*, the graduating class of 1966, was nicknamed the *tonda* or big class. Members of this class rose to prominent ranks and position within the Salvadoran armed forces and government. Although not a member of the *tonda*, the commander of the FAS, Col Juan Rafael Bustillo maintained powerful ties to the members of that class. Colonel Bustillo, a proven combat pilot in the 1969 war with Honduras, assumed control of the air forces after the 1979 coup when Bustillo's fellow *tanda* members selected him to run the air force.[37] For a decade, Colonel (later general) Bustillo maintained complete control over all the FAS aircraft and helicopters at Illopango AB and Comalapo AB. Such was his control that he reserved his helicopters for use by the FAS paratroop

battalion and occasionally withheld support from Army commanders unless they were his *tanda* classmates.[38]

As the FAS grew in size and importance during the war, competition increased between it and the army. In 1989 the air force displayed its displeasure and defiance after newly elected President Alfredo Christiani did not appoint the FAS commander as the defense minister. For two days the air force grounded aircraft at Illopango and threatened to boycott the war. A few days later during a military review, air force jets buzzed the reviewing stand of the outgoing defense minister, effectively drowning out his speech.[39]

The FAS and army also lacked the willingness to plan and operate jointly until the mid-1980s. In 1983 the Salvadoran army initiated the Long-Range Reconnaissance Patrol (LRRP) program. The LRRPs were small units that would infiltrate or be inserted into guerrilla-contested areas of the country, shadow the guerrillas, and call in artillery or air strikes to constantly harass and attrit insurgents. This plan called for insertion aircraft, standby helicopters, and pilots at forward-deployed launch sites. Because it drew on FAS assets, already limited as they were, it took many months for General Bustillo to support this concept.[40]

Cultural Factors

In the early 1980s, critics labeled the Salvadoran military as a "nine to five" army, noting its limited tempo of operations against the insurgents.[41] Many of the officers and enlisted troops were simply not committed to fighting against the highly motivated insurgents.[42] Over time, the military increased their efforts both against the insurgents and for the support of the people. But this came only after President Duarte forced changes in the military leadership.

The FAS also did not inform the Salvadoran people of their efforts against the insurgents very well. Lt Col Salvador Palacios, former O-2 and A-37 FAS group commander, believes that lack of communication between the military and the people detracted from the effort of gaining civilian support.[43] Perhaps because of the military-dominated government, the armed forces in general did not feel the need to educate or justify their operations to the civilian masses. As a result, flights overhead, especially strike operations, may have appeared as random and indiscriminate attacks on the population. Col John Waghelstein made these same observations and attempted to increase the US Military Group's communication with the press corps to highlight the positive aspects of El Salvador's struggle against the insurgents.[44]

Command, Control, and Operations

Tasking Air Assets

The limited American presence gave the Salvadorans control of the air war. They guarded their airspace with almost jealous fervor and insisted on being provided all the flight details of the three American helicopters in

country.[45] However, the FAS exercised their control through an extremely primitive tactical air command center (TACC.)[46] The TACC, at Illopango AB, received most incoming information and requests for air support over nonsecure telephone lines.

Prior to the mid-1980s, the FAS operated with moderate effectiveness; but for the most part, air operations were autonomous and separate from ground operations. Many missions were the result of villagers calling in to the FAS and requesting air support to put down an attack by the insurgents. In March 1983 when insurgents attacked the village of La Speranza, two villagers traveled for almost a full day to the air base of Illopango. After explaining their plight to General Bustillo, the general ordered a strike package of A-37s to launch immediately. General Bustillo placed one of the villagers in the O-2 aircraft observer flight preceding the strike package to provide knowledge of the village area and to help discriminate between friend and foe. In this way the mission was initiated, and to a certain degree, controlled by residents from the area under attack.[47]

Mission Planning and Targeting Guidance

Just as in Vietnam, Salvadoran forces faced the difficulty of distinguishing between friend and foe on the ground. Although support flowed from Nicaragua, the rebels also received abundant support from the local population.[48] Thus, though airborne assets could locate groups of people in the harsh, mountainous terrain, the crews were often unable to identify whether they were hostile. This inability to positively identify insurgent targets—coupled with the lack of intelligence concerning rebel strongholds—resulted in some indiscriminate air attacks that killed few rebels but caused numerous civilian fatalities. These civilian deaths, magnified in the world press, only caused political grief for the Salvadoran government and underscored its inability to combat the insurgents effectively.[49]

Later in the war, the FAS developed procedures to help distinguish friend from foe during night operations. The FAS had not historically flown and employed at night, but US trainers assisted in developing night tactics and procedures.[50] Eventually, FAS A-37s employed flares to light up the ground below to help with target identification. On a notable mission in December 1989, the FAS employed this method of flare identification—coupled with communications with ground forces—to prevent the FMLN from overrunning friendly Salvadoran army forces.[51]

Combat Intelligence

Prior to 1986 the FAS did not have the collection capability or the reporting structure to take full advantage of possible intelligence sources. For instance, as early as 1982 USAF OV-1 Mohawk and C-130 aircraft flying out of Honduras provided some reconnaissance information on rebel activity and located bases that were crucial to the insurgent campaign.[52] The US overflights of the area revealed elaborate reinforced bunkers, training areas, and other infrastructure devoted to long-term existence. In this area the FMLN maintained secure bases that housed insurgent political and military leadership. Unfortunately, because of limited intelligence

processing and dissemination capability, the FAS either would not or could not assimilate this information into their mission planning. In 1986–87 the FAS intelligence section reorganized and activated a special analysis center at FAS headquarters to support mission planning for joint operations.[53] This center fused reconnaissance as well as intelligence into one coherent planning system which provided more timely and accurate information for FAS mission planning.

When the Salvadorans conducted military operations in the northern provinces, their own movements telegraphed their intentions to the clandestine intelligence network of the rebels.[54] Helicopters laden with government troops were launched from villages in the south without any tactical deception to deny rebels warning of their destination or intentions. The rudimentary insurgent intelligence network used open phone lines to communicate numbers, launch times, and predicted flight route of the government forces, allowing insurgents to dictate the time, place, and manner of confrontation.

The US-inspired Operation Well-Being launched in 1983 confirmed a rebel capability to anticipate large attacks with their intelligence network. Operating out of San Vincente's northern sector, Salvadoran infantry were ferried by helicopter and trucks via easily observable boarding and launching areas. This information was relayed to rebel troops in the target areas and allowed their forces to follow textbook guerrilla strategy by dispersing and avoiding large-scale military confrontation.[55]

The reverse of this intelligence dilemma allowed insurgents to perform attacks on high-level government positions. Rebel leaders were able to gain intelligence from their network to plan a series of successful raids: the December 1983 attack on the main army barracks in Chalatenango, the January 1984 destruction of the heavily guarded Cuscutlan bridge, and the June 1984 raid on the Cerron Grande Dam.[56] The most disastrous attack on the FAS occurred in January 1982 at Illopango, the major air base in El Salvador. Rebels destroyed 50 percent to 70 percent of the aircraft on the ground.[57] However, the United States replaced the losses with newer and more capable aircraft such as the A-37 and O-2.

Other Significant Factors

Rules of Engagement

The El Salvadoran armed forces had no established ROE to guide early operations in the war. As early as 1982, Gen Wallace Nutting, then CINC-SOUTH, testified that the United States was operating in a training capacity, not an advisory or operational capacity. As such, he felt that talks meant to address ROE "would probably run into some concerns for sovereignty" and that he was not aware of any attempt to officially communicate recommended ROE to the Salvadoran government.[58] Not until 1984 did President Duarte institute measures to reduce the mounting civilian casualties—and then only in response to international outrage over human rights violations.[59]

Even without the directive by President Duarte, FAS pilots exercised caution during strike missions to avoid civilian fratricide. General Bustillo required his pilots to acquire "eyes on target" to reduce collateral deaths during strikes.[60] Unfortunately, not every pilot complied with or was as capable of discriminating between friendly and hostile ground combat activity. However, FAS leadership attempted to limit incidental deaths due to air strikes. Later in the war, Maj Michael Brogan, a US Army communications officer assigned to the Military Group in El Salvador, witnessed occurrences when FAS pilots called off bombing raids because the risk of harming civilians was too great.[61]

Training

Both pilot training and maintenance training lagged behind the expanding force structure. As of 1987 the FAS owned 135 aircraft, yet it had only 70 active pilots.[62] To compensate for the lack of pilots, each pilot needed to maintain proficiency in more than one aircraft, a problem further exacerbated by shortage in qualified instructor pilots. Lack of indigenous training facilities and instructors forced most FAS to be trained either in the United States or at the Inter-American Air Force Academy at Albrook Field in Panama.[63] To reduce the turnaround time for graduating trained pilots, in 1984 the United States eventually waived the preflight requirement for six months of English training school for Salvadoran pilot candidates.[64] Also, because American officers serving in a war zone were forbidden to take any action that might result in immediate disadvantage to the enemy, instructor pilots charged with improving FAS tactical effectiveness could not fly with them on missions to assess their competence or debrief their tactics.[65]

Maintenance practices, deplorable to begin with, also suffered from a lack of trained mechanics.[66] The poorly educated conscripts were unable to master the intricacies of aviation maintenance and US maintenance trainers walked a fine line trying to improve FAS maintenance practices.[67] Again, because of the "no combat" restriction on US personnel, trainers were not allowed to perform maintenance on aircraft used for combat operations; however, almost every aircraft was designated to support the war effort. This conundrum made US trainer involvement difficult at best. They could not physically load armament or perform routine pre- and postflight maintenance on line aircraft.[68] Therefore, US trainers had limited opportunity to demonstrate techniques or work with the Salvadorans to devise methods suitable to their environment.

Limitations

The result of successful guerrilla raids on government installations forced the Salvadoran government to commit troops and resources to protect air assets and their support systems. When the US supplied A-37s, AC-47s, and UH-1 helicopters, this introduced a logistics trail of spare parts, fuel, training, and flight crews—all of which were necessary components to complete the air missions. Salvadoran forces that guarded these components were taken from the same forces that operated in the field

against the insurgents. Removing soldiers from offensive operations reduced the capability of the government to contest the insurgents.[69]

El Salvador: Conclusions

Eventual Outcomes

In November 1989 the FMLN launched its "final offensive" against the Salvadoran government.[70] The FMLN intended to attack not only military targets but also planned to occupy parts of San Salvador, the capital of El Salvador. Similar to the Vietcong in the Tet offensive of 1968, the FMLN rebels underestimated Salvadoran military capability. The FMLN exhausted its military capability in the final offensive, yet still maintained the ability to harass and deny El Salvador's armed forces complete victory. Though the FMLN tried a second counteroffensive in 1990, their failure proved the FMLN was no longer a potent military threat. Realizing they had no capacity to physically overthrow the government, the insurgents adopted a "talk, talk, fight, fight" strategy, hoping to win political, if not military success.[71]

Over the next two years, the FMLN and El Salvador engaged in politico-military attempts to secure peace. Finally, in January 1992 the two sides signed a peace agreement. The FMLN disbanded completely as a military organization but, in return, received considerable concessions: land reforms, national police reforms, and a purge of the military human rights abusers.[72] Though disarming the FMLN was complicated, as of this writing the FMLN is recognized as a legitimate political party; and the country of El Salvador has enjoyed seven years of peace.

El Salvador: Lessons Learned

Unlike US military buildup in South Vietnam, America did not make the Salvadoran armed forces into a "mini-US" military. The United States remained true to the policy of keeping the war "Salvadoran." The United States specifically limited US involvement to a small number of troops stationed in country. This limitation meant that any direct influence on Salvadoran military operations by the trainers came from a limited few. It also meant the United States did not install infrastructure to support a large influx of American personnel and material. As such, the United States did not upgrade Salvadoran air bases, install a JOC or a communications network, or attempt to drastically modify their C^2 structure. The FAS made progress towards successful joint operations at their own pace.

Another significant issue the trainers faced was the rampant corruption and the *tanda*-centered officer corps. With limited personnel to supplant current mode of operations, US personnel could only watch as corrupt officers made poor military decisions in order to further their careers or line their pockets. Admittedly, there were forward-looking officers who rebelled against the status quo, most notably those who instigated the 1979 coup. But for several years the officers of the *tonda* held sway in military and political matters.

In spite of the challenges, the trainers learned to help the Salvadorans help themselves. As of 1992, El Salvador has enjoyed a relatively stable peace—a peace fought for and won by Salvadorans.

Notes

1. Martin C. Needler, "El Salvador: The Military and Politics," *Armed Forces and Society*, Summer 1991, 570–73. Dr. Needler was the dean of the School of International Studies.

2. Ibid., 583–85; and José Angel Moroni Bracamonte and David E. Spencer, *Strategy and Tactics of the Salvadoran FMLN Guerrillas* (Westport, Conn.: Praeger, 1995).

3. Thomas P. Anderson, *Politics in Central America* (New York: Praeger, 1982), 74–76.

4. Needler, 575. Approximately 25 percent of arable land was to be seized and redistributed in lots of no more than 245 acres. Facing attempted land seizures by armed peasants, the junta mismanaged the operation, and Salvadoran security forces took over the administration of the land reform. These forces gave much of the land to the military and paramilitary members.

5. Gen John R. Galvin, USA, commander in chief, US Southern Command, *Armed Forces Journal International*, December 1985, 36. General Galvin was CINCSOUTHCOM from 1983 to 1986.

6. Senate, *The Situation in El Salvador: Hearings before the Committee on Foreign Relations*, 97th Cong., 1st sess., 18 March and 9 April 1981, 55.

7. José Napoleón Duarte, *My Story* (New York: G. P. Putnam's Sons, 1986), 171. Duarte maintains the decision to limit the number of trainers to 55 was based on discussions between himself and US Ambassador White in 1981.

8. US Representative Jim Leach et al., "The Escalation of the Air War: A Congressional View," in *El Salvador: Central America in the Cold War*, ed. Marvin E. Gettleman et al. (New York: Grove Press, 1986); and Dr. John D. Waghelstein, professor, Operations Department, US Naval War College, Newport, R.I., interviewed by author, 31 March 1999. Dr. Waghelstein is a retired US Army colonel who served seven tours in or in support of SOUTHCOM. He served as the Military Group commander, El Salvador, from 1982 to 1983. Also, in October 1983 three "trainers" were relieved of duty for traveling by helicopter over a combat zone.

9. Waghelstein interview.

10. Leach et al., 230–31.

11. John D. Waghelstein, *El Salvador: Observations and Experiences in Counterinsurgency*, DTIC Technical Report AD-B091 068 (Alexandria, Va.: Defense Technical Information Agency, 1 January 1985), 36. Hereinafter referred to as *Observations and Experiences*.

12. Fred E. Woerner, "Report of the El Salvador Military Strategy Assistance Team," draft (Washington, D.C.: National Security Archive, 12 September–8 November 1981), 24–25. General Woerner's report was a comprehensive look at El Salvador and addressed not only military improvement issues but civil/political and population issues as well. Although many sections of the report are still classified, the unclassified sections are refreshingly frank in their assessment and identified many of the endemic social problems that plagued the Salvadoran military.

13. Leach, 231.

14. Quoted in Leach, 232.

15. Phillip J. Williams and Knut Walter, *Militarization and Demilitarization in El Salvador's Transition to Democracy* (Pittsburgh, Pa.: University of Pittsburgh Press, 1997), 119; and Richard Duncan Downie, *Learning from Conflict: The US Military in Vietnam, El Salvador, and the Drug War* (Westport, Conn.: Praeger, 1998), 141.

16. Leach, 232. Between July 1983 and February 1984, the number of A-37 hours flown increased by 68 percent a month, and UH-1 flight hours increased by 60 percent per month.

17. Waghelstein, *Observations and Experiences*, Appendix F, F-1.

18. Jerry Klingaman, director of Tactics and Plans, 6th Special Operations Squadron, Hurlburt Field, Fla., interviewed by author, 31 March 1999. Klingaman is a retired USAF lieutenant colonel. His previous assignments include professor of Regional Warfare Studies at USAF Air War College and Senior Research Fellow at CADRE (College for Aerospace Doctrine, Research and Education).

19. Waghelstein, *Observations and Experiences*, 37.

20. Duarte, 194.

21. Waghelstein, *Observations and Experiences*, 39.

22. Daniel P. Hagedorn, *Central American and Caribbean Air Forces* (Kent, Great Britain: Air-Britain (Historians) Ltd., 1993), 79.

23. Ibid., 88–89. FAS front line fighter and attack aircraft consisted of F-51s, T-34s, and B-26s.

24. A. J. Bacevich et al., *American Military Policy in Small Wars: The Case of El Salvador* (Washington, D.C.: Pergamon–Brassey's, 1988), 32.

25. Hagedorn, 91–95. The Ouragan was a single-engine ground attack jet fighter; the A-37 was a twin-engine, modified jet trainer capable of air strikes and forward air control and observation; the O-2 was a single-engine, propeller observation aircraft with limited rocket capability; the AC-47 was a modified C-47 with side-firing capability.

26. Barton Meyers, "Defense against Aerial Attack in El Salvador," *Journal of Political and Military Sociology*, Winter 1994, 329. The UH-1H variant served principally as the troop carrier while the UH-1M and Hughes 500 accomplished the helicopter attack missions.

27. Klingaman interview. This paratroop battalion was a Salvadoran army unit placed under the command of an FAS major.

28. Prior to the election, President Duarte served on the junta as the Christian Democratic party representative. In the four years he served as president, Duarte is credited with instituting social reforms and working to overhaul the corrupt Salvadoran armed forces.

29. Senate, Report to the Committee on Foreign Relations and Committee on Appropriations, *El Salvador: The United States in the Midst of a Maelstrom*, 97th Cong., 2d sess., March 1982, 6.

30. Williams and Walter, 139, 148.

31. Senate, *El Salvador: The United States in the Midst of a Maelstrom*, 6.

32. Kenneth E. Sharpe, "Rotten at the Corps: Officers' Mafia in El Salvador," *Nation*, 19 October 1985, 372; and Max Singer, "Militarism and Democracy in El Salvador," *Society*, September–October 1990, 52–53. Singer offers a different viewpoint concerning the civilian deaths: "Army brutality is another source of misunderstanding about the political situation within the Salvadoran officer corps. To understand the political meaning of such brutality a distinction must be made between 'political killings' and 'guerrilla war killings.' . . . The fact that many killings by the army did not really serve any legitimate military purpose does not mean that they were not part of guerrilla war. They would not have happened but for that war, and, therefore, should be understood as 'guerrilla war killings.'"

33. Bacevich., 25.

34. Sharpe; Charles Lane, "The Pilot Shark of El Salvador," *New Republic*, 24 September 1990, 27–32; Joel Millman, "El Salvador's Army: A Force Unto Itself," *New York Times Magazine*, 10 December 1989; and Benjamin C. Schwarz, *American Counterinsurgency Doctrine and El Salvador: The Frustrations of Reform and the Illusions of Nation Building*, RAND Report R-4042-USDP (Santa Monica, Calif.: RAND, 1991), 17–22.

35. Quoted in Martin Diskin and Kenneth Sharpe, *The Impact of U.S. Policy in El Salvador, 1979–1985* (Berkeley, Calif.: Institute of International Studies, 1987), 30.

36. Quoted in Diskin and Sharpe, 30. The sentiment was that the armed forces "Fourteen Warlords" had replaced the "Fourteen Families" as the ruling elite (in reference to the brigade and detachment commanders controlling operations in the fourteen regional provinces of El Salvador).

37. Hagedorn, 91.

38. Lane, 28; Bacevich, 31; and Waghelstein interview. General Bustillo is reputed to have operated one of the most lucrative smuggling operations out of Illopango, an accusation that has yet to be proven, but one that has ample circumstantial evidence and anonymous interviews to merit some level of belief. To his credit, General Bustillo brokered an agreement during the crisis between Colonel Ochoa (a departmental commander) and General Garcia (minister of defense) in 1982. He helped to avert what could have been a potentially explosive and violent coup between the army and the defense ministry.

39. Lane, 31; and Millman, 42.

40. John D. Waghelstein, "Ruminations of a Pachyderm or What I Learned in the Counter-insurgency Business," *Small Wars and Insurgencies*, Winter 1994, 367; and Waghelstein interview.

41. George C. Herring, "Vietnam, El Salvador, and the Uses of History," *El Salvador: Central America in the New Cold War*, ed. Marvin E. Gettleman et al. (New York: Grove Press, 1986), 373; and David H. Petraeus, "El Salvador and the Vietnam Analogy," *Armed Forces Journal International*, February 1987, 45.

42. Diskin and Sharpe, 30.

43. Salvador Palacios, student at Air War College, interviewed by author, 2 April 1999. Palacios served as an O-2 pilot, A-37 pilot in the FAS, and flew in combat during the entire El Salvadoran war. With more than 1,000 combat missions, Palacios served as squadron commander of O-2 operations. He also served as group commander of O-2 and A-37 operations.

44. John D. Waghelstein, "El Salvador and the Press: A Personal Account," *Parameters*, Autumn 1985, 66–70.

45. David H. Petraeus, "El Salvador and the Vietnam Analogy," *Armed Forces Journal International*, February 1987, 44.

46. Klingaman interview. The radios used in the TACC were "fugitives from other systems."

47. Ibid.

48. Petraeus, 44.

49. James S. Corum, "The Air War in El Salvador," *Airpower Journal*, Summer 1998, 40–41.

50. Waghelstein, *Observations and Experiences*, 46.

51. Palacios interview. Palacios was the flight leader of an A-37 strike package assigned to provide support during this mission.

52. Tammy Arbuckle, "Same Hardware, Same Tactics, Same Conclusions in El Salvador?" *Armed Forces Journal International*, December 1985, 46; and Robert S. Greenberger and Clifford Krauss, "Reagan Plan to Revive Intelligence Flights Used by El Salvador Prompts Concern," *Wall Street Journal*, 8 August 1984, 35.

53. Williams and Walter, 119, 167. Transforming intelligence processes was just one by-product of the National Joint Coordination Committee efforts in March 1986. In 1987 El Salvador established the Escuela de Nacional de Intelligencia, which was designed to centralize the training of those involved in intelligence gathering.

54. Jose Angel Moroni Bracamonte and David E. Spencer, *Strategy and Tactics of the Salvadoran FMLN Guerrillas* (Westport, Conn.: Praeger, 1995), 49. When the army launched attacks into FMLN zones of influence, it passed through an interlocking network of guerrilla hamlets and cantons to reach the zone. When it passed through this network, the masses and FMLN militia compiled intelligence on the passing units.

55. Arbuckle, 48. This occurred repeatedly in 1984 and 1985 during government operations into northern Morazan (on the Honduran border).

56. Diskin and Sharpe, 29–30; and Arbuckle, 52. Though the dam was not destroyed, the successful attack in which 100 Salvadoran troops were killed demonstrated the ineffectiveness of the Salvadoran army to defend themselves.

57. Tommie Sue Montgomery, *Revolution in El Salvador: Origins and Evolution* (Boulder, Colo.: Westview, 1982); and Corum, 32.

58. Senate Committee on Foreign Relations, *Presidential Certifications on Conditions in El Salvador*, 97th Cong., 2d sess., 3 August 1982, 43. General Nutting did go on to say that he felt that they had some semblance of ROE in an "indirect fashion," referring to the efforts of the 39 trainers in country.

59. Leach, 233.

60. Klingaman interview; Palacios interview; and Waghelstein interview. All three individuals confirmed during interviews that Bustillo required pilots to positively identify enemy ground forces before attacking.

61. Michael Patrick Brogan, *The Impact of the Vietnam Analogy on American Policy in El Salvador from 1979–1984* (Fort Leavenworth, Kans.: US Army Command and General Staff College, 1994), 30.

62. Bacevich, 32.

63. Corum, 32.

64. Waghelstein, *Observations and Experiences*, 46.

65. Bacevich, 10; and Klingaman interview.

66. Waghelstein interview; and Klingaman interview.

67. Bacevich, 32.

68. Klingaman interview.

69. Arbuckle, 56.

70. Bracamonte and Spencer, 33. Known as the Strategic Counter-Offensive or "Until the Limit" by the FMLN.

71. Ibid., 35.

72. Ibid., 36.

Chapter 4

US Air Force Counterinsurgency Doctrinal Guidance

The employment of aviation in small wars is characterized by the operation of many small units, two or three plane patrols, over a wide area.

—*Small Wars Manual,* 1940
US Marine Corps

Role of Doctrine

For the airman, "Air and space doctrine is a statement of officially sanctioned beliefs and war-fighting principles that describe and guide the proper use of air and space forces in military operations."[1] Air Force Doctrine Document (AFDD) 1, *Air Force Basic Doctrine,* states that doctrine is "meant to codify accumulated wisdom and provide a framework for the way we prepare for, plan, and conduct air and space operations."[2] The US Army takes a similar point of view with its capstone document, Field Manual (FM) 100-5, *Operations.* For the Army, "doctrine must be definitive enough to guide specific actions, yet remain adaptable enough to address diverse and varied situations worldwide."[3] From these statements one may deduce that airmen and soldiers ought to be able to turn to doctrine for guidance when preparing for war. What then is the current doctrine, or guidance, for Air Force operations in counterinsurgencies? To answer this question, this chapter reviews Air Force and joint service doctrine for applicability to the COIN situation. Additionally, this chapter briefly reviews other services' doctrine as possible sources of guidance for the airman.

US Air Force Doctrine

The USAF's capstone doctrine document, AFDD 1, espouses the strengths of a technologically advanced military. Its opening passages about the use of air and space power leave no doubt in the reader's mind that airpower can bring to bear incredible pressure on an enemy, precisely selecting the time and place of its application. Describing one of the tenets of airpower, synergistic effects, AFDD 1 states, "it is the precise, coordinated application of the various elements of air, space, and surface forces which brings disproportionate pressure on enemy leaders to comply with our national will."[4] One of the Air Force's core competencies, Precision Engagement, states air and space power provides the "scalpel," able to apply "discriminate" force precisely where required and will have "the ability to have superior situational awareness, and to mass force anywhere and attack any facet of the enemy's power."[5]

The use of airpower in COIN operations is not mentioned in AFDD 1. When describing military operations other than war (MOOTW), AFDD 1 lists Nation Assistance as one of many typical noncombat operations.[6] The Basic Doctrine of the Air Force refers to the use of airpower in Special Operations, one of air and space power's functions. Referring to Special Operations, AFDD 1 describes the role of airpower in foreign internal defense (FID), which is where other doctrine documents describe insurgency and COIN operations. However, the Air Force's capstone doctrine document does not explicitly reference COIN operations within its pages.

As for the organization and control of air assets, AFDD 2, *Organization and Employment of Aerospace Power*, provides key guidance to the airman. AFDD 2 lays out the continuum of war from peacetime to war winning and how air assets mobilize, deploy, and employ in support of national objectives. Key to this document is the chapter that provides guidance for designating a joint force air component commander (JFACC) and his responsibilities.[7] AFDD 2 makes it very clear that air forces assigned to a theater commander should come under the direction of a single air boss, the JFACC. The JFACC then must coordinate his air effort with the entire theater campaign to ensure his effort supports the joint force commander's objectives.

Perhaps just as important are the chapters that provide detailed explanations of joint air operations center (JAOC) functions and the development process for the Joint Air and Space Operations Plan (JASOP).[8] The system developed in these two chapters provides the airmen with a workable blueprint for preparing an air strategy that coordinates with other service functions to deliver airpower in its best form at the right place and at the right time.[9] These chapters, based on the USAF model, make the assumption that the resources, personnel, and organizational culture will support the assigning JFACC, standing up a JAOC and producing a coordinated JASOP.

AFDD 2-3, *Military Operations Other Than War*, describes FID operations as those that support a host nation's fight against insurgency and focuses on "counterinsurgency support to defeat an internal threat attempting to overthrow the established host government." This same passage states that "Successful counterinsurgents realized the true nature of the threat to the established government lies in the people's perception of their government's inability to solve problems."[10] The strategy advocated relies on an internal defense and development (IDAD) scheme to build political, economic, military, and social institutions that respond to the needs of society.[11] The document, however, focuses on dealing with multinational issues in MOOTW operations more along the lines of humanitarian efforts (e.g., efforts in Somalia), postconflict efforts (e.g., Operation Northern Watch), or emergency relief assistance (e.g., natural disasters). Specific guidance for the Air Force in counterinsurgencies is found in AFDD 2-7.1, *Foreign Internal Defense*.

US Air Force Foreign Internal Defense Doctrine

The opening passages of AFDD 2-7.1 state that USAF assistance in FID operations "focuses on supporting foreign military forces in performing

traditional air and space roles and missions."[12] To emphasize this focus, AFDD 2-7.1 outlines six specific FID objectives that deal with training, advising, and assisting foreign governments with employing and maintaining air and space power assets; transferring aviation assets to the host nation under the Security Assistance Program; and providing direct support to host nations (to include combat firepower for tactical operations).

Laying the foundation for the thought process of combating insurgencies, AFDD 2-7.1 offers Appendix A, "Insurgency and Counterinsurgency," as a primer for understanding and evaluating the basic components of an insurgency and counterinsurgency.[13] Appendix A highlights the ideological and political component that drives and sustains an insurgency, showing that insurgents fight their war on many fronts (social, economic, informational, political, and military). This appendix offers lessons distilled from Mao's essays on protracted warfare and describes the insurgency process as three phases: incipient or prehostilities, guerrilla warfare, and conventional confrontation.[14] The first phase involves building political and insurgent movement infrastructure and support. The second phase inflicts selective attacks to expand insurgent bases and build popular support. The third phase moves into conventional combat as the insurgents develop enough combat capability to challenge the legitimate government as a military power. Understanding the roots of insurgency and the phased activity of insurgent activity leads to a strategy that "requires a wide range of social, economic, informational, political, and military initiatives."[15] AFDD 2-7.1 makes it very clear that the unique political-ideological challenges of countering an insurgency demand that all instruments of power be combined into a single, integrated IDAD program comprised of both military and civilian resources. Appendix A concludes with the warning that the social and political implications of military actions should be completely understood lest the excessive or ineffective use of force erode government legitimacy and promote support for the insurgents.[16]

With regard to the real-world aspects of assisting a lesser-developed nation in its counterinsurgency efforts, AFDD 2-7.1 offers a laundry list of potential shortfalls in host-nation aviation operations capabilities. The document warns that the actual composition of the host nation's air force may be "relatively low in terms of force size, total sortie potential, resource consumption and availability, and overall support costs."[17] AFDD 2-7.1 also points out that these airframes may be well-used older aircraft, which may cause difficulty in obtaining spare parts and supplies; that their simplicity may allow easier, more innovative maintenance procedures; and that in some cases, the entire military aviation program of a host nation may be completely dependent upon foreign assistance.

The limitations on keeping a lesser-developed military air force flying include insufficient training of pilots and maintenance personnel, limited major aircraft repair facilities, lack of publications published in host-nation language and inadequate funding to maintain, much less upgrade, the current force.[18] Additionally, although host-nation pilots develop adequate basic flying skills, many individuals are "insufficiently trained in joint tactics, techniques, and procedures."[19] In most cases, outside train-

ing assistance is needed to generate host-nation training programs capable of providing self-sustaining internal personnel needs.

Aside from assessing airframes and personnel dedicated to keeping the force in the air, AFDD 2-7.1 cautions that the C^2 infrastructure of a lesser-developed military air force may be primitive or nonexistent.[20] Typically, these countries have a very limited capability for intelligence, surveillance, or reconnaissance with aircraft. Most intelligence information comes from human resources. However, even when collected, most countries do not have the centralized capability to fuse, assess, and distribute intelligence gained. AFDD 2-7.1 describes lesser-developed communications networks being based on "obsolete, low-performance radios that provide poor connectivity between air and surface elements."[21] Finally, this section closes by stating the "makeshift nature of communications" in a typical host country makes it vulnerable to jamming and interception, limits its ability to extend throughout the area of operations, and may produce a lack of communications security.[22]

As a prescription for airpower application against insurgencies, AFDD 2-7.1 states "the principal weight of air and space power should be applied where the government seeks critical points of leverage against the insurgent movement."[23] Airpower can support the COIN effort through development and mobilization (nation assistance) or security and neutralization (defeating insurgent military forces).[24] The critical enabler to successful application of airpower in counterinsurgencies is coordinating its application in the overall IDAD strategy and integrating it as one of the joint components of the internal defense effort. Bombing for strategic effect or precision engagement are not addressed as concepts of the COIN air effort, but rather the missions described are intelligence collection, airlift, CAS and interdiction, and psychological operations. AFDD 2-7.1 recommends that public information programs must be in effect to explain both nation assistance and military air activities.[25] In this way the government can explain and clarify the objectives and targets of each activity, thereby relieving fear and anxiety among friendly elements whose only source of information may be insurgent-based propaganda.

At the crux of the C^2 issue, AFDD 2-7.1 states, "As a general rule, US Air Force FID forces employed in combat operations should be organized, commanded, and controlled on the basis of guidance established in joint and US Air Force doctrines," and that C^2 are established on "the principle of centralized military control and decentralized execution."[26] However, the document admits that "significant C^2 interoperability problems typically involve incompatible equipment and standards, language barriers, differing C^2 procedures, lack of host-nation experience, and inadequate host-nation logistics infrastructures to maintain modern communications equipment."[27] This one line captures the essence of the interoperability problem if USAF personnel work to integrate into or attempt to create a C^2 system modeled on USAF requirements. This issue becomes especially difficult when the US ambassador, as head of the country team, oversees American involvement.

As for actual assessments of host–nation air and space capability, AFDD 2-7.1 advises survey and assessment teams to determine if the host nation can achieve their operational objectives with their own assets and

any upgrades or resources assistance should be maintainable within the technological resources of the recipient nation.[28] The assessment may divulge less of a need for equipment and more of a need for thought on the correct use and control of airpower. The FID doctrine for the USAF drives home the point that advisors can help host commanders apply an operational perspective to focus on the political and psychological implications of air combat operations.

In any event the assessment and follow-on support effort should not lead to "self-generating requirements for increasingly higher levels of US military involvement."[29] Attempting to keep the war a host-nation responsibility is a theme that runs through AFDD 2-7.1. As a final caution, this document describes the inherent dilemma when supporting a besieged friendly nation. Host-nation air and space requirements may exceed the limitations of security assistance. However, a US combat role may also be "tactically inappropriate or politically infeasible as a FID instrument."[30]

US Joint Doctrine

Joint doctrine applies air and space doctrine to joint operations and "describes the best way to integrate and employ air and space forces with land and naval forces in military action."[31] Therefore, one would not expect to see drastic contrasts between Air Force service doctrine and joint doctrine. However, it is instructive to identify the areas joint doctrine covers with respect to joint operations. Joint Publication (JP) 3-0, *Doctrine for Joint Operations*, highlights numerous items of significance for multinational operations. One of the key items is cultural differences, such as language or religion, and may present "the most immediate challenge."[32] Additionally, command, control, and coordination of efforts can be just as challenging because "differences in language, equipment, capabilities, doctrine, and procedures are some of the interoperability challenges that mandate close cooperation."[33] In the planning stage, it cautions that foreign liaison officers may not have authority to make decisions and that the entire intelligence gathering and dissemination process "can be a challenge."[34]

As with Air Force doctrine, the preponderance of guidance for military activity in counterinsurgencies is contained in the FID document, JP 3-07.1, *Joint Tactics, Techniques and Procedures (JTTP) for Foreign Internal Defense*. However, its guidance applies to the full range of US land, sea, and air military activities and capabilities and, therefore, is not detailed enough to offer explicit guidance to airmen. The few pearls of wisdom contained in the document reiterate the delicate nature of engaging in a foreign nation's war against insurgents. As stated in JP 3-07.1, "The fundamental principle of all FID efforts is that they foster internal solutions and assist IDAD programs for which the supported nation has ultimate responsibility and control."[35] The host nation is ultimately responsible for undertaking the strategic initiative to "preserve its legitimacy and ensure a lasting solution to the problem."[36] JP 3-07.1 dictates that US tactical participation in host-nation efforts "requires judicious and prudent rules of engagement (ROE) and guidelines for application of force."[37] All of the

above guidance from JP 3-07.1 maintains a focus on keeping the host nation in charge of directing its own COIN efforts.

US Army and Marine Corps Doctrine

Both the Army and Marine Corps present COIN operations with a greater level of detail than Air Force doctrine. Each service provides excellent discussions on the roots of and the development of an insurgent movement.[38] But their level of detail goes beyond an amplified discussion of insurgent causes. For instance, Fleet Marine Force Manual (FMFM) 8-2, *Counterinsurgency Operations*, provides an entire section on intelligence. In addition to espousing how important yet difficult intelligence collection is in a lesser-developed country, FMFM 8-2 elaborates on the type of information required, where to collect it, what sources to use, how to interpret the information collected, and other subjects pertinent to developing a successful intelligence network.[39] Similar levels of detail in Army doctrine are found in the section on combat service support for COIN operations.[40] This contrast in level of detail between Air Force and Army/Marine Corps doctrine is typical throughout most of the doctrine documents.

An additional document published jointly by the USAF and Army is FM 100-20/Air Force Pamphlet (AFP) 3-20, *Military Operations in Low Intensity Conflict*. This joint publication is a blend between the levels of detail in Air Force and Army doctrinal manuals. As a result, there is no information that offers additional specific guidance to the airman. However, FM 100-20/AFP 3-20 offers a guide to COIN operations that covers the spectrum of operations from consolidation of capability within the host nation, to strike operations, to postconflict missions. This guide—coupled with AFDD 2, which discusses the development of a JASOP—may provide a starting point for determining rebel centers of gravity to develop an integrated air strategy.

Counterinsurgency Doctrine: Minimal Guidance for Airmen

Doctrine is not meant to provide a blueprint for battle, nor is it to be so superfluous as to be of no merit whatever. US airmen may use doctrine for specific guidance, for reference, or for education during peacetime. Whichever the case, doctrine must provide a solid grounding in the accumulated wisdom and beliefs of a military organization. USAF COIN doctrine should draw upon its experiences from involvement in wars such as Vietnam and El Salvador. Appropriately, current Air Force doctrine enumerates some of the challenges presented to airmen in those wars and others like them. However, it differs from the US Army and Marine doctrine in the level of detail presented to the reader. This level of detail for Air Force doctrine may address the flexibility inherent to airpower but misses the mark when the airman is faced with the challenge of advising and training another country in the art of applying air and space power in a COIN campaign. Joint doctrine is even less specific and provides little concrete guidance for airmen in counterinsurgencies.

Notes

1. Air Force Doctrine Document (AFDD) 1, *Air Force Basic Doctrine*, September 1997, 1.
2. Ibid., 1.
3. Field Manual (FM) 100-5, *Operations*, June 1993.
4. AFDD 1, 24.
5. Ibid., 30.
6. AFDD 2-3, *Military Operations Other Than War*, October 1995, 13. The US Air Force considers COIN to be a portion of foreign internal defense (FID), which it further considers to be a portion of nation assistance.
7. AFDD 2, *Organization and Employment of Aerospace Power*, September 1998, 41–51.
8. Ibid., 74–84.
9. Ibid., 76–84. The five-stage planning process involves operational environment research, objective determination, center of gravity identification, strategy development, and JASOP development.
10. AFDD 2-3, 13.
11. Ibid., 13–14. This document uses the example of advisory support rendered by Air Force personnel to El Salvador to illustrate how the USAF can contribute to the successful conclusion of a counterinsurgency war.
12. AFDD 2-7.1, *Foreign Internal Defense*, February 1998, 2.
13. Ibid., 63–71.
14. Ibid., 66–67.
15. Ibid., 68.
16. Ibid.,71.
17. AFDD 2-7.1, 9.
18. Ibid., 10–11.
19. Ibid., 11.
20. Ibid., 12.
21. Ibid., 12.
22. Ibid., 12.
23. Ibid., 14.
24. Ibid., 15.
25. Ibid., 19.
26. Ibid., 35.
27. Ibid., 38.
28. Ibid., 54.
29. Ibid., 56.
30. Ibid., 57.
31. AFDD 1, 3.
32. Joint Publication (JP) 3-0, *Doctrine for Joint Operations*, February 1995, VI-3, 4.
33. Ibid., VI-6, 7.
34. Ibid., VI-10.
35. JP 3-07.1, *Joint Tactics, Techniques and Procedures for Foreign Internal Defense*, June 1996, I-3.
36. Ibid., I-13.
37. Ibid., I-14.
38. The Army provides excellent background information on the nature of insurgency in the following documents: FM 7-98, *Operations in a Low Intensity Conflict*, October 1992; FM 31-20, *Doctrine for Special Forces Operations*, April 1990; FM 31-20-3, *Foreign Internal Defense*, September 1994; and FM 90-8, *Counterguerrilla Operations*, August 1986. The Marines also provide excellent reference information on insurgencies with Fleet Marine Force Manual (FMFM) 8-2, *Counterinsurgency Operations*, January 1980.
39. FMFM 8-2, 55–70.
40. FM 7-98, 8-8 to 8-14.

Chapter 5

Counterinsurgency Reality versus Doctrinal Guidance

". . . doctrine shapes the manner in which the Air Force organizes, trains, equips, and sustains its forces."

—AFDD 1, *Air Force Basic Doctrine*

Counterinsurgency Reality: Lessons for Airmen

At least four key requirements can be drawn from the case studies presented in chapters 2 and 3 that are relevant to future USAF involvement in counterinsurgencies. The first requirement is to ensure the host government's intelligence system provides accurate, timely, and secure intelligence. The second is to recognize the technical capabilities and deficiencies of the host nation and the potential political impact of US-sponsored aid to upgrade its capabilities. The third is to recognize who "runs the show" and understand the degree of USAF control. And, finally, the fourth and perhaps most important lesson is to develop a coherent air strategy that supports the objectives of the host country.

1. Ensure host government's intelligence system provides accurate, timely, and secure intelligence.

Valid and timely intelligence is absolutely critical to success in defeating insurgents because of the unique characteristics of rebels using guerrilla tactics. Insurgents blend with, move among, and are supported by the people. Their guerrilla war strategy is normally based on maintaining a strategic defense while harassing and attriting government forces. Timely intelligence allows government forces to constantly pressure and attrit insurgent ranks. However, intelligence is a product of the technological and organizational infrastructure of the host country; and lesser-developed countries normally have no centralized system to perform adequate intelligence collection and analysis functions and have no procedure for timely dissemination.

Filling this intelligence void may require upgrading and/or restructuring the host government's intelligence system. After the 1986 Salvadoran intelligence organization restructuring, near-real-time intelligence information gave the FAS the ability to apply continued pressure to FMLN rebels.[1] In contrast, lack of timely target intelligence—which caused slow response time to requests for immediate air support in South Vietnam—was identified as a problem in a Special Assistance Inspection of SEA as late as 1964.[2] In addition to intelligence infrastructure deficiencies, the root causes of the insurgency (such as human rights violations) are likely to cause the civilian population to refuse information to the government

forces. COIN expert Max G. Manwaring argues that the El Salvadoran military recognized this fact and modified their prisoner interrogation methods. The military realized that humanely treated prisoners offered a good source of intelligence and also encouraged defections among the rebels, which resulted in improved Salvadoran military performance.[3]

The host government's system must also provide intelligence security. A lesser-developed country possesses few assets, so every loss exacts a more severe toll in its resources. Unless the United States or another third party country supplies parts and equipment as fast as they are destroyed, the host government cannot afford to lose resources due to intelligence lapses. Intelligence security presents unique challenges in countries that possess no secure communications methods, rely on open source telephones, and whose armed forces insurgent sympathizers may infiltrate. Informants in both the Vietnamese and Salvadoran conflicts were suspected of passing information concerning operational details to rebel forces. One of the prime examples of poor operational security is the attack on Illopango AB when the FAS lost at least 50 percent of their aviation assets. At this time the FMLN possessed the entire listing of pilots in the FAS—information that was probably compromised at a high level.[4]

2. Recognize the technical capabilities and deficiencies of the host nation and the potential political impact of US-sponsored aid.

This involves more than just knowing what aircraft are on the ramp; it requires knowledge of pilot training and proficiency, maintenance practices and procedures, repair and supply capability, joint service operations experience, and the potential political impact of increased US support in these areas. Most third world countries do not invest in the procedures, practices, training, and equipment required to maintain a viable air force. In both Vietnam and El Salvador, host-nation air forces faced problems generated by old aircraft, deplorable maintenance, and lack of parts. In both cases host-nation air forces did not train for or execute joint operations or night missions. As a result, US advisors in both wars needed to develop credible recommendations for equipment and training upgrades compatible with host-nation infrastructure. For example, US trainers in El Salvador balanced the needs of the Salvadoran military with what Waghelstein called goodie pushers—individuals both in the US and El Salvador who wanted to provide high-tech aircraft and armament to upgrade the Salvadoran air forces.[5]

The potential political impact of US-sponsored aid is that increasing US support and/or presence may reduce the legitimacy of the host nation. In South Vietnam introduction of high-tech equipment, such as radar sites, communication equipment, and aircraft required maintainers, technicians, trainers, and other support personnel to deploy in order to ensure successful installation and application of the resources. The significant US presence arguably diminished the legitimacy of the South Vietnamese government by highlighting the government's inability to control its own destiny. In contrast, the US government made it very clear it would not send combat troops to El Salvador to defeat the rebels when it placed the 55-man limit on the number of trainers in country. Admittedly, the Air Force advisor assisting the host nation may not have the deciding vote

concerning increased levels of assistance, but he can work to help the host nation produce technically and politically viable solutions with the resources it has.

    3. Recognize who "runs the show" and understand the degree of USAF control.

Airmen need to operate within the bounds of US command structures, yet they must also understand and deal with host-nation politics. US military involvement in third country affairs is normally at the direction of a country team headed by the US ambassador. As head of the country team in South Vietnam, Ambassador Nolting delayed further activity by Farmgate personnel until he was clear on force structure organization. Even as the war in South Vietnam progressed, Nolting voiced his concerns directly to Washington about the performance of and adverse impact of air operations in South Vietnam. In El Salvador, Ambassador Robert E. White performed a similar function when he agreed with Duarte on limiting the number of US military personnel allowed in country. Although the Goldwater–Nichols Act of 1986 empowered the regional CINCs with more authority and autonomy in regional military affairs, the country team, led by the ambassador, still remains the focal point of national affairs with the host country.

Within the host country's national structure, air advisors need to work with a host nation's political and military command structure to effect changes in its organization and operations. The Salvadoran *tanda* system is typical of third world military class structure. Power is wielded by a select few, and military operations can be affected by the personal relationships between these power brokers. One's position or status within the military ranks influences the degree of support received from other members, such as when General Bustillo in El Salvador withheld air support from ground commanders based on graduating class dates. Similarly, pilots in South Vietnam could not conduct air strikes without the permission of a province chief; hence, the FAC's relationship with the province chief most often determined if air support would be permitted.

To succeed against insurgents, the incumbent government must foster a well-disciplined, highly professional, motivated military force capable of rapid and decisive actions designed to achieve political as well as military objectives. But how do Air Force advisors train and modernize, democratize, and professionalize a corrupt service, such as the *tanda*-centered FAS was in El Salvador? Brig Gen H. K. Eggleston, acting chief of the MAAG army section in South Vietnam, recognized the dilemma of promoting change without having command authority when he stated, "I am aware of the fact that we do not 'command' in the usual sense of the word. However, the advent of U.S. support units in Vietnam, combined with experience in the advisory role, places field advisors in a position to influence tactical operations."[6] General Eggleston saw the role of the advisor as a method to induce positive change. Unfortunately, if US presence is limited to a low number of advisors—as it was in El Salvador—making an impact in the fundamental, culture-based practices of host-nation officers is difficult, if not impossible. In fact, assistance and training had little impact on stemming corruption in FAS.[7] However, the threat of withholding military assistance by the US government worked to improve the force.

4. Develop a coherent air strategy that supports the objectives of the host country.

This is not merely an "air and space operations strategy" to inflict the greatest damage on the rebels; it is a comprehensive recommendation for applying airpower to achieve the incumbent government's political objectives. The civilian-military "duality" of insurgent strategies demands that air advisors remain mindful of the host nation's need to win the war on both fronts—civilian and military. Airmen must answer the what, when, where, how, and why for airpower as it connects to the overall IDAD plan.

One of the first steps is assessing host-nation capabilities. In his report, General Woerner provided an insightful and honest assessment of the Salvadoran military's capabilities, limitations, and deficiencies. He also made recommendations for restructuring and upgrading Salvadoran armed forces *based on El Salvadoran national objectives*, not US objectives. Next, advisors must be aware of the history of the struggle, understand the nature of the insurgency, and be familiar with nuances in the country's national character or culture. Unfortunately, USAF advisors involved in both South Vietnam and El Salvador had little understanding of the conflict or the enemy when they first arrived in country.

Finally, advisors must define and articulate the best use of airpower to support the government's struggle against the insurgency. Airmen must provide a cogent, practical strategy for the employment of airpower, from force application to civil and psychological airborne operations. For instance, airmen must recommend credible ROE. With the exception of certain situations (troops in contact, emergency defense measures, positively identified rebel concentrations) airborne firepower must be applied with extreme discretion to avoid civilian casualties or destruction of national infrastructure. Indiscriminate deaths became a US and host-nation concern in both the South Vietnam and El Salvadoran wars. Additionally, advisors must not underrate the utility of civil and psychological airborne operations. These missions, flown to communicate and demonstrate the government's benevolence and willingness to reform, may play a significant role in gaining and maintaining control of the key center of gravity—the hearts and minds of the people.

Applicability and Sufficiency of Doctrine

Given the four requirements described above, does current doctrine provide useful guidance for Air Force members in their roles as trainers, advisors, and compatriots in another nation's war against insurgents? One must first describe the appropriate level of detail required for useful doctrinal guidance. I. B. Holley phrased well the role of doctrine:

> Doctrine is not and was never meant to be prescriptive. Doctrine is suggestive. It says, "This is what has usually worked best in the past," but this in no way frees decision makers from the need to form their own judgement in any given situation.

> Doctrines are not a series of universally valid maxims or positive prescriptions. They are points of departure for thoughtful decision makers, who must judge each situation individually. When we say doctrine is "authoritative," all we mean

is that it is objectively recorded experience that remains worthy of and requires the critical attention of the decision maker.[8]

Using this description as a benchmark, doctrine should capture lessons of critical experiences by past airmen and provide a "point of departure" for current airmen. For the USAF advisor to a foreign government that is combating insurgents, doctrine should provide guidance on the critical issues faced in past COIN operations, and be at a level of detail to at least prompt airmen to consider the issues when developing a course of action.

As presented, the first requirement for airmen is to ensure the host government's intelligence system provides accurate, timely, and secure intelligence. Air Force doctrine acknowledges the difficulty in securing intelligence with third world communication networks, and joint doctrine admits that the entire intelligence gathering and dissemination process "can be a challenge." Beyond that, Air Force and joint doctrine do not discuss methods to collect, analyze, or protect intelligence. Air Force doctrine acknowledges further that third world countries may not have the ISR capability to conduct effective intelligence operations, nor centrally process any human source information. But it does not advise on the importance that human intelligence plays in providing information on insurgent operations and covert networks. As described earlier, human provided intelligence is invaluable for the host government to isolate and pressure the insurgent organization. Marine Corps doctrine is much better in this regard, providing detailed information on what sources to use, how to collect, and how to interpret information. In effect, Air Force and joint doctrine identify the problem associated with intelligence processes in less-developed countries, but neither one provides suggestions to allow a point of departure for the reader to create solutions.

The second requirement was to recognize the technical capabilities and deficiencies of the host nation and the potential political impact of US-sponsored aid to upgrade its capabilities. Air Force doctrine clearly identifies old aircraft, second-rate maintenance, limited personnel, and poor training as shortfalls in many third world countries. As a remedy, it recommends assessment teams to determine if the host nation can achieve their objectives with their own assets. It further states that any externally supplied system should be maintainable within the host nation. Air Force and joint doctrine also repeatedly stress the need to foster host-nation control of the entire IDAD process. Air Force doctrine recognizes the dilemma of providing too much aid and cautions that provided aid should not lead to "self-generating requirements for increasingly higher levels of US military involvement."[9] Essentially, Air Force doctrine identifies the issue of recognizing host-nation capabilities and limitations but falls short in its discussion for resolving the problem. Although specific detail would mean to prescribe a recommendation to an unknown problem, Air Force doctrine could present possible solutions such as adapting non-US aircraft as suitable mission platforms.

The third requirement—recognize who runs the show and understand the degree of US Air Force control—is problematic for doctrine. Air Force doctrine does not discuss the roles and responsibilities of the country team or its relationship to the military advisors. In contrast, Army doc-

trine lays out this information and provides possible command structures for military advisors. As for indigenous political and military command structures, Air Force doctrine admits the technological barriers of implementing a C^2 network but does not address the *cultural* aspects of the issue. On the other hand, joint doctrine labels cultural differences as presenting the "most immediate challenge." It acknowledges that culture, language, and other more technical differences may affect command, control, and coordination. This issue is problematic because there are too many cultures with too many nuances to be addressed specifically in doctrine. However, the very fact that host-nation culture and national character can present such an "immediate challenge" presents a clear case for educating airmen to a higher degree on these unique characteristics of the country prior to deployment. If this education is not done through doctrine, which is probably an inappropriate place for specific country information, then the Air Force must acquire appropriate country information through foreign area officers or country team briefs as appropriate.

The last requirement—develop a coherent air strategy that supports the objectives of the host country—certainly has ample experiential data on which to base an "authoritative" solution. Air Force doctrine merely provides broad guidance by stating that "the principal weight of air and space power should be applied where the government seeks critical points of leverage against the insurgent movement."[10] It further lists the four broad categories where airpower may serve the needs of the government: development, mobilization, security, and neutralization. Instead of providing a practical guidance for airpower application, Air Force doctrine reinforces the notion that its strength is maximized only if coordinated in the overall IDAD strategy.

However, the USAF can provide better advice for airpower employment than current doctrine offers. At the very least, the Air Force should provide official histories of USAF involvement in COIN efforts and perhaps recognize the successes of other countries that dealt with similar COIN challenges. Specifically, official histories on the strategy devised, actions taken, and results of involvement in the case studies presented would provide airmen points of departure when advising in other COIN campaigns. Another solution is to include a discussion of possible uses of airpower in USAF FID doctrine. Professor Drew and Col Robert L. Hardie provide excellent discussions of the practical use of airpower in counterinsurgent operations.[11] The essence of these papers could be distilled and placed in an appendix of AFDD 2-7.1 or presented in an Air Force doctrine document on a level similar to JP 3-07.1, *Joint Tactics, Techniques, and Procedures for Foreign Internal Defense*. In this regard the USAF, as the steward of airpower, must do better when providing guidance on air operations in counterinsurgencies.

Conclusions

This study presented two case studies dealing with US involvement in another country's war against insurgents. In Vietnam the United States provided a large amount of aid in the form of money, materiel, and per-

sonnel. In addition, US airmen installed various C^2 systems within the country to facilitate further US involvement. In doing so the personnel of the Farmgate detachment faced political and military challenges. Likewise, US trainers in El Salvador faced similar challenges, though with a much reduced manning footprint in country. That one effort eventually failed, and the one effort that eventually succeeded is not the issue. Based on the shared experiences by airmen in these two cases, two germane questions to this essay are noted. What are the major problems COIN operations present airmen? And does doctrine provide appropriate guidance to overcome these problems?

The case study analysis and the preceding discussion illustrate that current USAF and joint doctrine lack the depth and detail necessary for guiding airmen as they develop courses of action to succeed against insurgents. Although USAF and joint doctrine offer broad guidance concerning the lessons previously developed from the case studies, one needs to turn to Army and Marine doctrine for in-depth coverage of intelligence and country team issues. Likewise, for developing a coherent COIN air strategy, Air Force doctrine falls woefully short of even providing a point of departure for airmen to construct a comprehensive air strategy.

The caveat to this conclusion is that USAF doctrine must maintain the flexibility to cover situations similar to but *not the same as* the conflicts in Vietnam and El Salvador. Never should the airman be content to accept doctrine as static or all-encompassing. As a past doctrine has taught us, "Doctrine should be alive—growing, evolving, and maturing. New experiences, reinterpretations of former experiences, advances in technology, changes in threats, and cultural changes can all require alterations to parts of our doctrine even as other parts remain constant. If we allow our thinking about aerospace power to stagnate, our doctrine can become dogma."[12] Without becoming dogmatic, USAF doctrine must once again evolve and mature to provide airmen with the guidance required to formulate cogent thoughts on dealing with problems associated with applying airpower in counterinsurgencies.

Notes

1. Salvador Palacios, student Air War College, interviewed by author, 2 April 1999. Palacios served as squadron commander of O-2 operations and group commander of O-2 and A-37 operations.

2. Chief, PACAF Assistance Team, memorandum to Headquarters 2d Air Division, subject: special assistance inspection, September 1964 (included in History, 2d Air Division, January–June 1964, chap. 2, USAF Operations, Supporting Documents), 7.

3. Max G. Manwaring and Court Prisk, *El Salvador at War: An Oral History* (Washington, D.C.: National Defense University Press, 1988), 324–28.

4. Palacios interview.

5. John D. Waghelstein, "Ruminations of a Pachyderm or What I Learned in the Counterinsurgency Business," *Small Wars and Insurgencies*, Winter 1994, 370. Military personnel and civilians alike in the United States and El Salvador wanted to upgrade the FAS with the Northrop F-5 Tiger.

6. H. K. Eggleston, acting chief, Army Section, Military Assistance Advisory Group, memorandum, to wide distribution, subject: Methods of Improving RVNAF Operations, 30 March 1962 (included in Project CHECO Southeast Asia Report, Part V-A, Supporting Documents, October 1961–December 1963).

7. Phillip J. Williams and Knut Walter, *Militarization and Demilitarization in El Salvador's Transition to Democracy* (Pittsburgh, Pa.: University of Pittsburgh Press, 1997), 147.

8. Maj Gen I. B. Holley Jr., USAFR, Retired, "Fifty Questions for Doctrine Writers: Means Are as Important as Ends," *Airpower Journal*, Fall 1997, 31.

9. AFDD 2-7.1, *Foreign Internal Defense*, September 1994, 56.

10. Ibid., 14.

11. Dennis M. Drew, *Insurgency and Counterinsurgency—American Military Dilemmas and Doctrinal Proposals*, CADRE Paper no. 88-1 (Maxwell AFB, Ala.: Air University Press, March 1988); and Robert L. Hardie, "Airpower in Counterinsurgency Warfare," unpublished report no. 3373 (Maxwell AFB, Ala.: Air War College, April 1967).

12. Air Force Manual 1-1, *Basic Aerospace Doctrine of the United States Air Force*, vol. 1, March 1992, vii.

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